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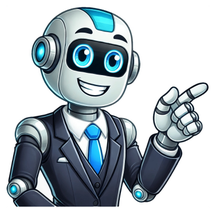

Specialized subunit within a cellOrganelleDetailsPronunciation/rnl/Part ofCellIdentifiersLatinorganellaMeSHD015388THH1.00.01.0.00009 FMA63832Anatomical terms of microanatomy[edit on Wikidata]In cell biology, an organelle is a specialized subunit, usually within a cell, that has a specific function. The name organelle comes from the idea that these structures are parts of cells, as organs are to the body, hence organelle, the suffix -elle being a diminutive. Organelles are either separately enclosed within their own lipid bilayers (also called membrane-bounded organelles) or are spatially distinct functional units without a surrounding lipid bilayer (non-membrane bounded organelles). Although most organelles are functional units within cells, some functional units that extend outside of cells are often termed organelles, such as cilia, the flagellum and archaellum, and the trichocyst (these could be referred to as membrane bound in the sense that they are attached to (or bound to) the membrane).Organelles are identified by microscopy, and can also be purified by cell fractionation. There are many types of organelles, particularly in eukaryotic cells. They include structures that make up the endomembrane system (such as the nuclear envelope, endoplasmic reticulum, and Golgi apparatus), and other structures such as mitochondria and plastids. While prokaryotes do not possess eukaryotic organelles, some do contain protein-shelled bacterial microcompartments, which are thought to act as primitive prokaryotic organelles;[1] and there is also evidence of other membrane-bounded structures.[2] Also, the prokaryotic flagellum which protrudes outside the cell, and its motor, as well as the largely extracellular pilus, are often spoken of as organelles.Cell biologyAnimal cell diagramComponents of a typical animal cell:NucleolusNucleusRibosome (dots as part of 5)VesicleRough endoplasmic reticulumGolgi apparatus (or, Golgi body)CytoskeletonSmooth endoplasmic reticulumMitochondrionVacuoleCytosol (fluid that contains organelles; with which, comprises cytoplasm)LysosomeCentrosomeCell membraneIn biology, organs are defined as confined functional units within an organism.[3] The analogy of bodily organs to microscopic cellular substructures is obvious, as from even early works, authors of respective textbooks rarely elaborate on the distinction between the two.In the 1830s, Flix Dujardin refuted Ehrenberg's theory that microorganisms have the same organs as multicellular animals, only smaller.[4]Credited as the first[5][6][7] to use a diminutive of organ (i.e., little organ) for cellular structures was German zoologist Karl August Mbius (1884), who used the term organula (plural of organulum, the diminutive of Latin organum).[8] In a footnote, which was published as a correction in the next issue of the journal, he justified his suggestion to call organs of unicellular organisms "organella" since they are only differently formed parts of one cell, in contrast to multicellular organs of multicellular organisms.[8][9]While most cell biologists consider the term organelle to be synonymous with cell compartment, a space often bounded by one or two lipid bilayers, some cell biologists choose to limit the term to include only those cell compartments that contain deoxyribonucleic acid (DNA), having originated from formerly autonomous microscopic organisms acquired via endosymbiosis.[10]The first, broader conception of organelles is that they are membrane-bounded structures. However, even by using this definition, some parts of the cell that have been shown to be distinct functional units do not qualify as organelles. Therefore, the use of organelle to also refer to non-membrane bounded structures such as ribosomes is common and accepted.[11][verification needed][12][13]This has led many texts to delineate between membrane-bounded and non-membrane bounded organelles.[14] The non-membrane bounded organelles, also called large biomolecular complexes, are large assemblies of macromolecules that carry out particular and specialized functions, but they lack membrane boundaries. Many of these are referred to as "proteinaceous organelles" as their main structure is made of proteins. Such cell structures include:large RNA and protein complexes: ribosome, spliceosome, vaultlarge protein complexes: proteasome, DNA polymerase III holoenzyme, RNA polymerase II holoenzyme, symmetric viral capsids, complex of GroEL and GroES; membrane protein complexes: porosome, photosystem I, ATP synthaselarge DNA and protein complexes: nucleosomecentriole and microtubule-organizing center (MTOC)cytoskeletonflagellumnucleolusstress granulegerm cell granuleneuronal transport granuleThe mechanisms by which such non-membrane bounded organelles form and retain their spatial integrity have been likened to liquid-liquid phase separation.[15]The second, more restrictive definition of organelle includes only those cell compartments that contain deoxyribonucleic acid (DNA), having originated from formerly autonomous microscopic organisms acquired via endosymbiosis.[10][16][17]Using this definition, there would only be two broad classes of organelles (i.e. those that contain their own DNA, and have originated from endosymbiotic bacteria):mitochondria (in almost all eukaryotes)plastids[18] (e.g. in plants, algae, and some protists).Other organelles are also suggested[by whom?] to have endosymbiotic origins, but do not contain their own DNA[citation needed] (notably the flagellum see evolution of flagella).Eukaryotic cells are structurally complex, and by definition are organized, in part, by interior compartments that are themselves enclosed by lipid membranes that resemble the outermost cell membrane. The larger organelles, such as the nucleus and vacuoles, are easily visible with the light microscope. They were among the first biological discoveries made after the invention of the microscope.Not all eukaryotic cells have each of the organelles listed below. Exceptional organisms have cells that do not include some organelles (such as mitochondria) that might otherwise be considered universal to eukaryotes.[19] The several plastids including chloroplasts are distributed among some but not all eukaryotes.There are also occasional exceptions to the number of membranes surrounding organelles, listed in the tables below (e.g., some that are listed as double-membrane are sometimes found with single or triple membranes). In addition, the number of individual organelles of each type found in a given cell varies depending upon the function of that cell. The cell membrane and cell wall are not organelles.Major eukaryotic organellesOrganelleMain functionStructureOrganismsNoteschloroplast (plastid)photosynthesis, traps energy from sunlightdouble-membrane compartmentplants, algae, rare kleptoplastic organismshas own DNA; theorized to be engulfed by the ancestral archaeplastid cell (endosymbiosis)endoplasmic reticulumtranslation and folding of new proteins (rough endoplasmic reticulum), expression of lipids (smooth endoplasmic reticulum)single-membrane compartmentall eukaryotesrough endoplasmic reticulum is covered with ribosomes (which are bound to the ribosome membrane), has folds that are flat sacs; smooth endoplasmic reticulum has folds that are tubularflagellumlocomotion, sensoryproteinsome eukaryotesGolgi apparatussorting, packaging, processing and modification of proteinssingle-membrane compartmentall eukaryotescis-face (convex) nearest to rough endoplasmic reticulum; trans-face (concave) farthest from rough endoplasmic reticulummitochondrionenergy production from the oxidation of glucose substances and the release of adenosine triphosphatedouble-membrane compartmentmost eukaryotesconstituting element of the chondriome; has own DNA; theorized to have been engulfed by an ancestral eukaryotic cell (endosymbiosis)[20]nucleusDNA maintenance, controls all activities of the cell, RNA transcriptiondouble-membrane compartmentall eukaryotescontains bulk of genomevacuolestorage, transportation, helps maintain homeostasissingle-membrane compartmentall eukaryotesMinor eukaryotic organelles and cell componentsOrganelle/MacromoleculeMain functionStructureOrganismsacrosomehelps spermatozoa fuse with ovumsingle-membrane compartmentmost animals (including sponges)autophagosomevesicle that sequesters cytoplasmic material and organelles for degradationdouble-membrane compartmentall eukaryotescentrioleanchor for cytoskeleton, organizes cell division by forming spindle fibersMicrotubule proteinanimalsciliummovement in or of external medium; "critical developmental signaling pathway".[21]Microtubule proteinanimals, protists, few plantscnidocyststingingcoiled hollow tubulecnidarianseyespot apparatusdetects light, allowing phototaxis to take placegreen algae and other unicellular photosynthetic organisms such as euglenidsglycosomecarries out glycolysissingle-membrane compartmentSome protozoa, such as Trypanosomes.glyoxysomeconversion of fat into sugarssingle-membrane compartmentplantshydrogenosomeenergy & hydrogen productiondouble-membrane compartmenta few unicellular eukaryoteslysosomebreakdown of large molecules (e.g., proteins + polysaccharides)single-membrane compartmentanimalsmelanosomepigment storagesingle-membrane compartmentanimalsmitosomeprobably plays a role in Ironsulfur cluster (FeS) assemblydouble-membrane compartmenta few unicellular eukaryotes that lack mitochondriamyofibrilmyocyte contractionbundled filamentsanimalsnucleoluspre-ribosome productionproteinDNARNAmost eukaryotesocelloiddetects light and possibly shapes, allowing phototaxis to take placedouble-membrane compartmentmembers of the family Warnowiaceaeparenthesomenot characterizednot characterizedfungiperoxisomebreakdown of metabolic hydrogen peroxidesingle-membrane compartmentall eukaryotesporosomesecretory portalsingle-membrane compartmentall eukaryotesproteasomedegradation of unneeded or damaged proteins by proteolysisvery large protein complexall eukaryotes, all archaea, and some bacteriaribosome (80S)translation of RNA into proteinsRNA-proteinall eukaryotesstress granulemRNA storage[22]membraneless(mRNP complexes)most eukaryotesTIGER domainmRNA encoding proteinsmembranelessmost organismsvaultunclear; possibly nuclear-cytoplasmic transportRNA-proteinmost eukaryotes (including all higher eukaryotes)vesiclematerial transportsingle-membrane compartmentall eukaryotesOther related structures:cytosolendomembrane systemnucleosomemicrotubule(A) Electron micrograph of Halothiobacillus neapolitanus cells, arrows highlight carboxysomes. (B) Image of intact carboxysomes isolated from H. neapolitanus. Scale bars are 100 nm.[23]Structure of Candidatus Brocadia anammoxidans, showing an anammoxosome and intracytoplasmic membraneProkaryotes are not as structurally complex as eukaryotes, and were once thought to have little internal organization, and lack cellular compartments and internal membranes; but slowly, details are emerging about prokaryotic internal structures that overturn these assumptions.[2] An early false turn was the idea developed in the 1970s that bacteria might contain cell membrane folds termed mesosomes, but these were later shown to be artifacts produced by the chemicals used to prepare the cells for electron microscopy.[24]However, there is increasing evidence of compartmentalization in at least some prokaryotes.[2] Research has revealed that at least some prokaryotes have microcompartments, such as carboxysomes. These subcellular compartments are 100200nm in diameter and are enclosed by a shell of proteins.[1] Even more striking is the description of membrane-bounded magnetosomes in bacteria, reported in 2006.[25][26]The bacterial phylum Planctomycetota has revealed a number of compartmentalization features. The Planctomycetota cell plan includes intracytoplasmic membranes that separates the cytoplasm into paryphoplasm (an outer ribosome-free space) and pirellulosome (or riboplasm, an inner ribosome-containing space).[27] Membrane-bounded anammoxosomes have been discovered in five Planctomycetota "anammox" genera, which perform anaerobic ammonium oxidation.[28] In the Planctomycetota species Gemmata obscuriglobus, a nucleus-like structure surrounded by lipid membranes has been reported.[27][29]Compartmentalization is a feature of prokaryotic photosynthetic structures.[2] Purple bacteria have "chromatophores", which are reaction centers found in invaginations of the cell membrane.[2] Green sulfur bacteria have chlorosomes, which are photosynthetic antenna complexes found bonded to cell membranes.[2] Cyanobacteria have internal thylakoid membranes for light-dependent photosynthesis; studies have revealed that the cell membrane and the thylakoid membranes are not continuous with each other.[2]Prokaryotic organelles and cell componentsOrganelle/macromoleculeMain functionStructureOrganismsanammoxosomeanaerobic ammonium oxidationladderane lipid membrane"Candidatus" bacteria within Planctomycetotacarboxysomecarbon fixationprotein-shell bacterial microcompartmentsome bacteriachlorosomephotosynthesislight harvesting complex attached to cell membranegreen sulfur bacteriaflagellummovement in external mediumprotein filamentsome prokaryotesmagnetosomemagnetic orientationinorganic crystal, lipid membranemagnetotactic bacterianucleoidDNA maintenance, transcription to RNADNA-proteinprokaryotespilusAdhesion to other cells for conjugation or to a solid substrate to create motile forces.a hair-like appendage sticking out (though partially embedded into) the plasma membraneprokaryotic cellsplasmidDNA exchangecircular DNAsome bacteriaribosome (70S)translation of RNA into proteinsRNA-proteinbacteria and archaeathylakoid membranesphotosynthesisphotosystem proteins and pigmentsmostly cyanobacteriaCoRR hypothesisEjectosomeEndosymbiotic theoryOrganelle biogenesisMembrane vesicle traffickingHostpathogen interactionVesiculo-vacuolar organelle^ a b Kerfeld CA, Sawaya MR, Tanaka S, Nguyen CV, Phillips M, Beeby M, Yeates TO (August 2005). "Protein structures forming the shell of primitive organelles". Science. 309 (5736): 9368. Bibcode:2005Sci...309..936K. CiteSeerX10.1.1.1026.896. doi:10.1126/science.1113397. PMID16081736. S2CID24561197.^ a b c d e f g Murat, Dorothee; Byrne, Meghan; Komeili, Arash (2010-10-01). "Cell Biology of Prokaryotic Organelles". Cold Spring Harbor Perspectives in Biology. 2 (10): a000422. doi:10.1101/cshperspect.a000422. PMC2944366. PMID20739411.^ Peterson L (April 17, 2010). "Mastering the Parts of a Cell". Lesson Planet. Retrieved 2010-04-19.^ Di Gregorio MA (2005). From Here to Eternity: Ernst Haeckel and Scientific Faith. Gottingen: Vandenhoeck & Ruprecht. p.218.^ Btschli O (1888). Dr. H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs wissenschaftlich dargestellt in Wort und Bild. Erster Band. Protozoa. Dritte Abtheilung: Infusoria und System der Radiolaria. p.1412. Die Vacuolen sind demnach in strengem Sinne keine bestndigen Organe oder Organula (wie Mbius die Organe der Einzelligen im Gegensatz zu denen der Vielzelligen zu nennen vorschlug).^ Ryder JA, ed. (February 1889). "Embryology: The Structure of the Human Spermatozoon". American Naturalist. 23: 184. It may possibly be of advantage to use the word organula here instead of organ, following a suggestion by Mbius. Functionally differentiated multicellular aggregates in multicellular forms or metazoa are in this sense organs, while, for functionally differentiated portions of unicellular organisms or for such differentiated portions of the unicellular germ-elements of metazoa, the diminutive organula is appropriate.^ Robin C, Pouchet G, Duval MM, Retterrer E, Tourneux F (1891). Journal de l'anatomie et de la physiologie normales et pathologiques de l'homme et des animaux. F. Alcan.^ a b Mbius K (September 1884). "Das Sterben der einzelligen und der vielzelligen Tiere. 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It includes a table listing organelles involved in genetic information contrSaveSave Cell Organelles - Structure and Function For Later0%0% found this document useful, undefined,the free encyclopedia that anyone can edit.117,937 active editors 7,001,389 articles in EnglishThe English-language Wikipedia thanks its contributors for creating more than seven million articles! Learn how you can take part in the encyclopedia's continued improvement.GL Mk.II transmitter vanRadar, Gun Laying, MarkI, or GL Mk.I for short, was an early World WarII radar system developed by the British Army to provide information for anti-aircraft artillery. There were two upgrades, GL/EF (elevation finder) and GL Mk.II (pictured), both improving the ability to determine a target's bearing and elevation. GL refers to the radar's ability to direct the guns onto a target, known as gun laying. The first GL sets were developed in 1936 using separate transmitters and receivers mounted on gun carriages. Several were captured in 1940, leading the Germans to believe falsely that British radar was much less advanced than theirs. The GL/EF attachment provided bearing and elevation measurements accurate to about a degree: this caused the number of rounds needed to destroy an aircraft to fall to 4,100, a tenfold improvement over early-war results. The Mk.II, which was able to directly guide the guns, lowered the rounds-per-kill to 2,750. About 410 Mk.Is and 1,679 Mk.IIs were produced. (Fullarticle...)Recently featured: Andrea NavageroNosy KombaMcDonnell Douglas Phantom in UK serviceArchiveBy emailMore featured articlesAboutLieke Klaver ahead in the women's 400 metres final... that a 400-metre race in 2025 (pictured) was won by Lieke Klaver, who pretended that an absent competitor was running in front of her?... that the land snail Drymaeus poecilus is notable for the striking variety of colors and patterns on its shell?... that a forensic investigation of Signalgate has determined how a journalist was included in a group chat about Operation Rough Rider?... that two of the players involved in the 2005 Vietnamese football match-fixing scandal did not accept payment because they felt ashamed?... that a rebellion against a peace treaty with the Yuan dynasty operated out of the Historic Site of Anti-Mongolian Struggle on Jeju Island?... that Nathan Frink fled the United States with enslaved children to settle in Canada, where he was elected as a Member of the Legislative Assembly and caught in a smuggling conspiracy?... that Seattle's women's ice hockey team has an expected rival, despite not even having played their first game?... that Cave Johnson Couts was separately acquitted for shooting his foreman, firing on funeral mourners, and whipping a native laborer to death?... that characters' scars in an episode of The Last of Us were made with a paste-based appliance and a food mixer?ArchiveStart a new articleNominate an articleNgg wa Thiong'oKenyan writer and activist Ngg wa Thiong'o (pictured) dies at the age of 87.In sumo, nosato Daiki is promoted to yokozuna.In association football, Liverpool win the Premier League title.In motor racing, lex Palou wins the Indianapolis 500.In basketball, the EuroLeague concludes with Fenerbahe winning the Final Four Playoff.Ongoing: Gaza warM23 campaignRussian invasion of UkrainetimelineSudanese civil wartimelineRecent deaths: Phil RobertsonMary K. GaillardPeter DavidAlan YentobGerry ConnollySebastio SalgadoNominate an articleMay 30: Statehood Day in Croatia (1990)Johann Sebastian Bach1431 Hundred Years' War: After being convicted of heresy, Joan of Arc was burned at the stake in Rouen, France.1723 Johann Sebastian Bach (pictured) assumed the office of Thomaskantor in Leipzig, presenting the cantata Die Elenden sollen essen in St.Nicholas Church.1922 The Lincoln Memorial in Washington, D.C., featuring a sculpture of the sixteenth U.S. president Abraham Lincoln by Daniel Chester French, opened.1963 Buddhist crisis: A protest against pro-Catholic discrimination was held outside the National Assembly of South Vietnam in Saigon, the first open demonstration against President Ng nh Dim.2008 The Convention on Cluster Munitions, prohibiting the use, transfer, and stockpiling of cluster bombs, was adopted.Ma Xifan (d.947)Colin Blythe (b.1879)Norris Bradbury (b.1909)Wynonna Judd (b.1964)More anniversaries: May 29May 30May 31ArchiveBy emailList of days of the yearAboutSeventeen performing "Oh My!" in 2018South Korean boy band Seventeen made their debut on May 26, 2015, when they performed a showcase for their debut EP 17 Carat in front of a crowd of 1,000 people. Since then, the group have held 9 concert tours, 13 fan meetings, and have performed at a number of music festivals and awards shows. Their concert tours include the Right Here World Tour, which sold over one million tickets, and the Follow Tour, which was noted by Billboard as being the top grossing K-pop tour of 2023. In 2024, Seventeen made their first appearances at festivals in Europe, when they were the first South Korean act to perform at Glastonbury Festival's Pyramid Stage and as headliners for Lollapalooza Berlin. Seventeen's live performances are well regarded by fans and critics alike, and garnered them the award for Top K-pop Touring Artist at the 2024 Billboard Music Awards. (Fulllist...)Recently featured: Accolades received by Top Gun: MaverickNational preserve76th Primetime Emmy AwardsArchiveMore featured listsIgnace Tonen (1840 or 1841 15 March 1916), also known as Nias or by his Ojibwe name Maiagizis ('right/correct sun'), was a Teme-Augama Anishnabai chief, fur trader, and gold prospector in Upper Canada. He was a prominent employee of the Hudson's Bay Company. Tonen was the elected deputy chief before being the lead chief and later the life chief of his community. In his role as deputy, he negotiated with the Canadian federal government and the Ontario provincial government, advocating for his community to receive annual financial support from both. His attempts to secure land reserves for his community were thwarted by the Ontario premier Oliver Mowat. Tonen's prospecting triggered a 1906 gold rush and the creation of Kerr Addison Mines Ltd., although one of his claims was stolen from him by white Canadian prospectors. This photograph shows Tonen in 1909.Photograph credit: William John Winter; restored by Adam CuerdenRecently featured: Australian white ibisHell Gate BridgeAnemonoides blandaArchiveMore featured picturesCommunity portal The central hub for editors, with resources, links, tasks, and announcements.Village pump Forum for discussions about Wikipedia itself, including policies and technical issues.Site news Sources of news about Wikipedia and the broader Wikimedia movement.Teahouse Ask basic questions about using or editing Wikipedia.Help desk Ask questions about using or editing Wikipedia.Reference desk Ask research questions about encyclopedic topics.Content portals A unique way to navigate the encyclopedia.Wikipedia is written by volunteer editors and hosted by the Wikimedia Foundation, a non-profit organization that also hosts a range of other volunteer projects: CommonsFree media repository MediaWikiWiki software development Meta-WikiWikimedia project coordination WikibooksFree textbooks and manuals WikidataFree knowledge base WikinewsFree-content news WikiquoteCollection of quotations WikisourceFree-content library WikispeciesDirectory of species WikiversityFree learning tools WikivoyageFree travel guide WiktionaryDictionary and thesaurusThis Wikipedia is written in English. 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"Adore U" serves as the lead single for the EP.17 Carat features five tracks written, co-written, and co-produced by Seventeen's group members. "Adore U" was chosen as the lead single for the EP and was performed on multiple music shows by the group. "Shining Diamond" was used as a pre-single on the group's reality debut show. The group stated that the tracklist was chosen to reflect Seventeen's core concept of "boys' passion".[1] The album has two physical versions: one with a "black" themed photo card set, and the other with a "white" themed photo card set. All copies include a CD containing the songs and a fold-up poster/lyric sheet."Adore U" is the lead single of the extended play. It was written by Woozi, S.Coups, and Yeon Dong-geon.[2] The Korea Herald states "'Adore U' is a funky pop song about a teenage boy trying to navigate through puppy love."[3] It marks the beginning of the group's trilogy composed of the singles Adore U, Mansae, and Pretty U about a boy meeting, falling in love and asking out a girl. The track was composed and arranged by Woozi, Bumzu, and Yeon Dong-geon. The music video for the single was released on May 29, 2015, and was directed by Dee Shin. The dance choreography accompaniment to the song was choreographed by Hoshi and focuses on "storytelling, and on highlighting each member's strengths onstage".[4] The single has sold more than 38,000 digital copies and peaked at number 13 on the Billboard US World Chart.The EP has sold over 82,972 copies in South Korea.[5] It peaked at number 4 on the Korean Gaon Album Chart[6] and number 8 on the US World Billboard Chart.[7]Year-end listsCritic/publicationListRankRef.BillboardThe 10 Best K-pop Album of 2015Placed[8]Hoshi participated in the choreography of "Adore U" and "Shining Diamond", Dino choreographed "Jam Jam".[9]Official track list[10]No.TitleLyricsMusicArrangementsLength1."Shining Diamond"WooziVernonS.CoupsKim Min-jeongWooziMasterKeyRishiMasterKeyRishi3:242.""Adore U"" (; Akkinda)WooziVernonS.CoupsBumzuWooziBumzuYeon Dong-geonWooziBumzuYeon Dong-geon3:073."Ah Yeah" (Hip-Hop unit)S. CoupsVernonWonwooMingyuCream DoughnutRishiCream DoughnutRishi3:294."Jam Jam" (Performance unit + Vernon)WooziHoshiDinoVernonWooziCream DoughnutCream Doughnut3:255."20" (Vocal unit)WooziWooziWon Yeong-heonWon Yeong-heonDong Ne-hyeong3:23Weekly chart performance for 17 CaratChart (2015-2023)PeakpositionJapanese Albums (Oricon)[11]46South Korean Albums (Gaon)[12]4US World Albums (Billboard)[13]8Year-end chart performance for 17 CaratChart (2015)PeakpositionSouth Korean Albums (Gaon)[14]47^ "Seventeen hopes to shine like diamonds with '17 Carat'". The Korea Herald. 26 May 2015. Retrieved 30 November 2016.^ "Adore U". Color Coded Lyrics. 29 May 2015. Retrieved 29 November 2016.^ "Seventeen hopes to shine like diamonds with '17 Carat'". The Korea Herald. 26 May 2015. Retrieved 30 November 2016.^ "Seventeen hopes to shine like diamonds with '17 Carat'". The Korea Herald. 26 May 2015. 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Retrieved February 17, 2024.Retrieved from " 3The following pages link to 17 Carat External tools(link counttransclusion countsorted list) See help page for transcluding these entriesShowing 50 items.View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Main Page (links | edit)Pledis Entertainment discography (links | edit)List of 2015 albums (links | edit)2015 in South Korean music (links | edit)Seventeen (South Korean band) (links | edit)S.Coups (links | edit)Vernon (rapper) (links | edit)Wonwoo (links | edit)List of awards and nominations received by Seventeen (links | edit)Seventeen discography (links | edit)Love & Letter (links | edit)Joshua (singer) (links | edit)Seventeen TV (links | edit)17 carat (redirect page) (links | edit)Going Seventeen (links | edit)List of Seventeen live performances (links | edit)Teen, Age (links | edit)Al1 (links | edit)Bumzu (links | edit)Boys Be (EP) (links | edit)You Make My Day (links | edit)You Made My Dawn (links | edit)Jun (Chinese entertainer) (links | edit)List of Stray Kids live performances (links | edit)The8 (links | edit)An Ode (links | edit)Seungkwan (links | edit)Fallin' Flower (links | edit)Heng:gar (links | edit)Semicolon (EP) (links | edit)Your Choice (links | edit)Going Seventeen (web series) (links | edit)Not Alone (Seventeen song) (links | edit)Attacca (EP) (links | edit)Rock with You (Seventeen song) (links | edit)Woozi (links | edit)Hoshi (South Korean singer) (links | edit)Don't Wanna Cry (Seventeen song) (links | edit)Darl+ing (links | edit)Face the Sun (links | edit)Left & Right (Seventeen song) (links | edit)24H (EP) (links | edit)We Make You (links | edit)Hot (Seventeen song) (links | edit)Dream (Seventeen EP) (links | edit)BSS (band) (links | edit)FML (EP) (links | edit)Super (Seventeen song) (links | edit)Always Yours (album) (links | edit)Seventeenth Heaven (links | edit)View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Retrieved from " WhatLinksHere/17_Carat" EBV Testing: A Laboratory Perspective Epstein-Barr virus (EBV), a widespread human -herpesvirus, infects nearly 90% of the global population by adulthood. 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MeSH Heading Organelles Tree Number(s) A11.284.430.214.190.875 Unique IDD015388 RDF Unique Identifier Annotationdo not confuse with ORGANOIDS: read MeSH definitions & follow text Scope NoteSpecific particles of membrane-bound organized living substances present in eukaryotic cells, such as the MITOCHONDRIA; the GOLGI APPARATUS; ENDOPLASMIC RETICULUM; LYSOSOMES; PLASTIDS; and VACUOLES. NLM Classification # QU 350 Previous Indexing Organoids (1966-1988) Public MeSH Note89 History Note89 Date Established 1989/01/01 Date of Entry 1988/06/06 Revision Date 2004/07/29 Organelles within cells are tiny engines encapsulating processes that allow the cells to live.But scientists have recently discovered that some organelles are not bound by a membrane, and studying these compartments in bacteria could open doors to understanding how to make some bacteria thrive, and how to thwart others.Christopher AzaldeguiOver the last decade, scientists have realized that eukaryotic cellscells that contain a membrane-bound nucleus and organellesalso use what are called membraneless organelles. These membraneless organelles confine a variety of processes for the cells to be able to function properly, says Anthony Vecchiarelli, assistant professor of molecular