

HECT E3 ubiquitin ligase Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55999

Specification

HECT E3 ubiquitin ligase Polyclonal Antibody - Product Information

Application IHC-P
Primary Accession O9UII4
Reactivity Rat
Host Rabbit
Clonality Polyclonal
Calculated MW 116852

HECT E3 ubiquitin ligase Polyclonal Antibody - Additional Information

Gene ID 51191

Other Names

E3 ISG15--protein ligase HERC5, 2.3.2.-, Cyclin-E-binding protein 1, HECT domain and RCC1-like domain-containing protein 5, HERC5, CEB1, CEBP1

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

HECT E3 ubiquitin ligase Polyclonal Antibody - Protein Information

Name HERC5

Synonyms CEB1, CEBP1

Function

Major E3 ligase for ISG15 conjugation (PubMed:26355087, PubMed:27564865, PubMed:27534820, PubMed:34572049, PubMed:37279284). Acts as a positive regulator of innate antiviral response in cells induced by interferon. Functions as part of the ISGylation machinery that recognizes target proteins in a broad and relatively non-specific manner. Catalyzes ISGylation of IRF3 which results in sustained activation, it attenuates IRF3-PIN1 interaction, which antagonizes IRF3 ubiquitination and degradation, and boosts the antiviral response. Mediates ISGylation of the phosphatase PTEN leading to its degradation, thus alleviating its suppression of the PI3K-AKT signaling pathway and promoting the production of cytokines that facilitate bacterial clearance (PubMed:http://www.uniprot.org/citations/37279284



target="_blank">37279284). Interferes with the function of key viral structural proteins such as ebolavirus structural protein VP40 or HIV-1 protein GAG (PubMed:22093708, PubMed:34572049). Catalyzes ISGylation of influenza A viral NS1 which attenuates virulence; ISGylated NS1 fails to form homodimers and thus to interact with its RNA targets. Catalyzes ISGylation of papillomavirus type 16 L1 protein which results in dominant-negative effect on virus infectivity. Physically associated with polyribosomes, broadly modifies newly synthesized proteins in a cotranslational manner. In an interferon-stimulated cell, newly translated viral proteins are primary targets of ISG15. Promotes parkin/PRKN ubiquitin E3 ligase activity by suppressing the intramolecular interaction that maintains its autoinhibited conformation (PubMed:27534820).

Cellular Location

Cytoplasm, perinuclear region. Cytoplasm Note=Associated with the polyribosomes, probably via the 60S subunit

Tissue Location

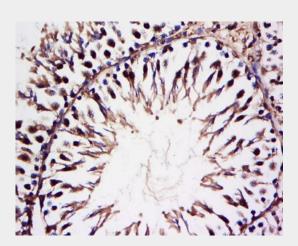
Expressed in testis and to a lesser degree in brain, ovary and placenta. Found in most tissues at low levels

HECT E3 ubiquitin ligase Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

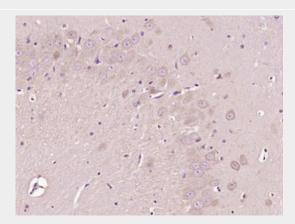
HECT E3 ubiquitin ligase Polyclonal Antibody - Images



Tissue/cell: Rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37% for 20 min;



Incubation: Anti-CEB1 Polyclonal Antibody, Unconjugated(bs-15445R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HECT E3 ubiquitin ligase) Polyclonal Antibody, Unconjugated (bs-15445R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.