

HYPE Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP54599

Product Information

Application IHC-P, IHC-F, IF, ICC, E

Primary Accession
Reactivity
Rat, Pig, Dog
Host
Rabbit
Clonality
Polyclonal
Calculated MW
51778

Additional Information

Gene ID 11153

Other Names Protein adenylyltransferase FICD, 2.7.7.n1, AMPylator FICD, De-AMPylase

FICD, FIC domain-containing protein, Huntingtin yeast partner E,

Huntingtin-interacting protein 13, HIP-13, Huntingtin-interacting protein E,

FICD (HGNC:18416)

Dilution IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-

10000

Format 0.01M TBS(pH7.4) with 1% BSA, 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.

Protein Information

Name FICD (HGNC:18416)

Function Protein that can both mediate the addition of adenosine 5'- monophosphate

(AMP) to specific residues of target proteins (AMPylation), and the removal of the same modification from target proteins (de-AMPylation), depending on the context (By similarity). The side chain of Glu-231 determines which of the

two opposing activities (AMPylase or de-AMPylase) will take place

(PubMed:36136088). Acts as a key regulator of the ERN1/IRE1-mediated unfolded protein response (UPR) by mediating AMPylation or de-AMPylation of HSPA5/BiP (PubMed:25601083, PubMed:36136088). In unstressed cells, acts as an adenylyltransferase by mediating AMPylation of HSPA5/BiP at 'Thr-518', thereby inactivating it (By similarity). In response to endoplasmic reticulum stress, acts as a phosphodiesterase by mediating removal of ATP (de-AMPylation) from HSPA5/BiP at 'Thr-518', leading to restore HSPA5/BiP activity (By similarity). Although it is able to AMPylate RhoA, Rac and Cdc42

 ${\it Rho\ GTPases\ in\ vitro,\ Rho\ GTPases\ do\ not\ constitute\ physiological\ substrates}$

(PubMed: <u>19362538</u>, PubMed: <u>25601083</u>).

Cellular Location Endoplasmic reticulum membrane; Single-pass type II membrane protein

Tissue Location Ubiquitous...

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.