

IMPACT Rabbit pAb

Catalog # AP98116

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9P2X3
Other Accession	Q9P2X3
Reactivity	Rat, Mouse
Predicted	Human, Rabbit, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36476
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human IMPACT
Epitope Specificity	21-120/320
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the IMPACT family. Contains 1 RWD domain.
SUBUNIT	Interacts with GCN1/GCN1L1 (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Translational regulator that ensures constant high levels of translation under amino acid starvation. Acts by interacting with GCN1/GCN1L1, thereby preventing activation of GCN2 protein kinases (EIF2AK1 to 4) and subsequent down-regulation of protein synthesis.

Additional Information

Gene ID	55364
Other Names	RWDD5; IMPCT_HUMAN; IMPACT; Imprinted and ancient gene protein homolog; IMPCT_RABIT; impact RWD domain protein; Impact homolog (mouse); RWD domain containing 5
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	IMPACT
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Function	Translational regulator that ensures constant high levels of translation upon a variety of stress conditions, such as amino acid starvation, UV-C irradiation, proteasome inhibitor treatment and glucose deprivation. Plays a role as a negative regulator of the EIF2AK4/GCN2 kinase activity; impairs GCN1-mediated EIF2AK4/GCN2 activation, and hence EIF2AK4/GCN2-mediated eIF-2-alpha phosphorylation and subsequent down-regulation of protein synthesis. May be required to regulate translation in specific neuronal cells under amino acid starvation conditions by preventing GCN2 activation and therefore ATF4 synthesis. Through its inhibitory action on EIF2AK4/GCN2, plays a role in differentiation of neuronal cells by stimulating neurite outgrowth.
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:O55091}.
Tissue Location	Widely expressed. Expressed at high level in brain.

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