

IMPACT Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP17553a

Product Information

Application	WB, E
Primary Accession	Q9P2X3
Other Accession	Q5GFD8 , NP_060909.1
Reactivity	Human
Predicted	Rabbit, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36222
Calculated MW	36476
Antigen Region	1-30

Additional Information

Gene ID	55364
Other Names	Protein IMPACT, Imprinted and ancient gene protein homolog, IMPACT
Target/Specificity	This IMPACT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human IMPACT.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IMPACT Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IMPACT
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.

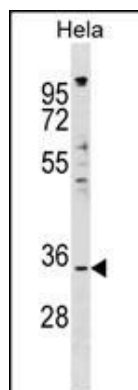
Background

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 (By similarity).

References

Habibi, D., et al. J. Cell. Physiol. 225(1):196-205(2010)
Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Pereira, C.M., et al. J. Biol. Chem. 280(31):28316-28323(2005)
Okamura, K., et al. Biochem. Biophys. Res. Commun. 329(3):824-830(2005)
Okamura, K., et al. DNA Res. 11(6):381-390(2004)

Images



IMPACT Antibody (N-term) (Cat. #AP17553a) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the IMPACT antibody detected the IMPACT protein (arrow).

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