

IMPACT Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP17553a**Specification**

IMPACT Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9P2X3](#)**IMPACT Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 55364**Other Names**

Protein IMPACT, Imprinted and ancient gene protein homolog, IMPACT

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IMPACT Antibody (N-term) Blocking Peptide - 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.

IMPACT Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

IMPACT Antibody (N-term) Blocking Peptide - Images

IMPACT Antibody (N-term) Blocking Peptide - 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).

IMPACT Antibody (N-term) Blocking Peptide - 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)