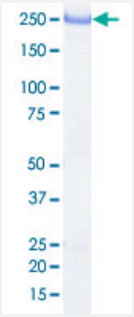
Bioactive Full-Length

EIF2AK4 (Human) Recombinant Protein

Catalog # P5554 Size 5 ug

Applications



Result of activity analysis

Result of activity analysis

Specification

Product Description	Human EIF2AK4 (NP_001013725, 1 a.a. - 1649 a.a.) full-length recombinant protein with GST tag expressed in baculovirus infected Sf21 cells.
Host	insect
Theoretical MW (kDa)	215
Form	Liquid
Preparation Method	Baculovirus infected insect cell (Sf21) expression system
Purification	Glutathione sepharose chromatography
Purity	90 % by SDS-PAGE/CBB staining

Activity	The activity was determined by ELISA. The enzyme was incubated with GST-fused substrate protein and tRNA, and after stopping kinase reaction by EDTA, the reaction solution was transferred into glut athione-coated plate. Phosphorylation was detected by anti- phospho antibody and HRP-labeled anti -rabbit IgG. Substrate: EIF2S1. ATP: 100 uM.
Quality Control Testing	Loading 1 ug protein in SDS-PAGE
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol).
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — EIF2AK4

Entrez GeneID	440275
Protein Accession#	NP_001013725; Q9P2K8
Gene Name	EIF2AK4
Gene Alias	GCN2, KIAA1338
Gene Description	eukaryotic translation initiation factor 2 alpha kinase 4
Omim ID	609280
Gene Ontology	Hyperlink
Gene Summary	EIF2AK4 belongs to a family of kinases that phosphorylate the alpha subunit of eukaryotic translat ion initiation factor-2 (EIF2S1; MIM 603907) to downregulate protein synthesis in response to vari ed cellular stresses (Berlanga et al., 1999 [PubMed 10504407]).[supplied by OMIM
Other Designations	GCN2 eIF2alpha kinase

Publication Reference

- GCN2 kinase activation by ATP-competitive kinase inhibitors.

  Colin P Tang, Owen Clark, John R Ferrarone, Carl Campos, Alshad S Lalani, John D Chodera, Andrew M Intlekofer, Olivier Elemento, Ingo K Mellinghoff.

  Nature Chemical Biology 2022 Feb; 18(2):207.

  Application: KA, Human, Recombinant proteins

- TIPRL potentiates survival of lung cancer by inducing autophagy through the eIF2α-ATF4 pathway.

  Jeon SJ, Ahn JH, Halder D, Cho HS, Lim JH, Jun SY, Lee JJ, Yoon JY, Choi MH, Jung CR, Kim JM, Kim NS.

  Cell Death & Disease 2019 Dec; 10(12):959.

  Application: KA, Human, 293T cells