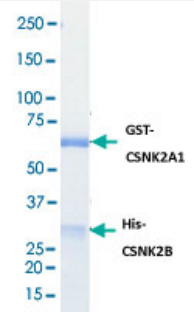
Bioactive

CSNK2A1/CSNK2B (Human) Recombinant Protein

Catalog # P5526 Size 5 ug

Applications



Result of activity analysis

Result of activity analysis

Specification

Product Description	Human CSNK2A1 (NP_001886.1, 1 a.a. - 391 a.a.) was coexpressed as N-terminal GST-fusion prot ein (72 kDa) and with human His-tagged CSNK2B (NP_001311.3, 1 a.a. - 215 a.a.) recombinant pr otein expressed in baculovirus system.

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Sequence	GST-CSNK2A1: MAPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKKFELGLEFPN LPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGAVLDIRYGVSRIAYSKDFETLKVDFL SKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPQI DKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLEVLFQGPLGAMGSMSGPVPSRARVYTDVNTH RPREYWDYESHVVEWGNQDDYQLVRKLGRGKYSEVFEAINITNNEKVVVKILKPVKKKKIKREIKIL ENLRGGPNIITLADIVKDPVSRTPALVFEHVNNTDFKQLYQTLTDYDIRFYMYEILKALDYCHSMGIMH RDVKPHNVMIDHEHRKLRLIDWGLAEFYHPGQEYNVRVASRYFKGPELLVDYQMYDYSLDMWSL GCMLASMIFRKEPFFHGHDNYDQLVRIAKVLGTEDLYDYIDKYNIELDPRFNDILGRHSRKRWERFV HSENQHLVSPEALDFLDKLLRYDHQSRLTAREAMEHPYFYTVVKDQARMGSSSMPGGSTPVSS ANMMSGISSVPTPSPLGPLAGSPVIAAANPLGMPVPAAAGAQQ His-CSNK2B: MSYYHHHHHHDYDIPTTENLYFQGAMGSMSSSEEVSWISWFCGLRGNEFFCEVD EDYIQDKFNLTGLNEQVPHYRQALDMILDLEPDEELEDNPNQSDLIEQAAEMLYGLIHARYILTNRGI AQMLEKYQQGDFGYCPRVYCENQPMLPIGLSDIPGEAMVKLYCPKCMDVYTPKSSRHHHTDGAY FGTGFPHMLFMVHPEYRPKRPANQFVPRLYGFKIHPMAYQLQLQAASNFKSPVKTIR
Host	insect
Form	Liquid
Preparation Method	Baculovirus expression system
Purification	Glutathione sepharose chromatography
Purity	98 % by SDS-PAGE/CBB staining
Activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluoresce nce-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates we re separated and detected by LabChip 3000. Substrate: CKtide. 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 — CSNK2A1

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Entrez GeneID	1457
Protein Accession#	NP_001886.1 (Gene ID : 1457);NP_001311.3 (Gene ID : 1460)
Gene Name	CSNK2A1
Gene Alias	CK2A1, CKII
Gene Description	casein kinase 2, alpha 1 polypeptide
Omim ID	115440
Gene Ontology	Hyperlink
Gene Summary	Casein kinase II is a serine/threonine protein kinase that phosphorylates acidic proteins such as c asein. The kinase exists as a tetramer and is composed of an alpha, an alpha-prime, and two bet a subunits. The alpha subunits contain the catalytic activity while the beta subunits undergo autoph osphorylation. The protein encoded by this gene represents the alpha subunit. While this gene is f ound on chromosome 20, a related transcribed pseudogene is found on chromosome 11. Three t ranscript variants encoding two different proteins have been found for this gene. [provided by Ref Seq
Other Designations	CK2 catalytic subunit alpha|OTTHUMP00000029925|OTTHUMP00000029926|casein kinase II al pha 1 subunit|casein kinase II alpha subunit|protein kinase CK2

Gene Info — CSNK2B

Entrez GeneID	1460
Protein Accession#	NP_001886.1 (Gene ID : 1457);NP_001311.3 (Gene ID : 1460)
Gene Name	CSNK2B
Gene Alias	CK2B, CK2N, CSK2B, G5A, MGC138222, MGC138224
Gene Description	casein kinase 2, beta polypeptide
Omim ID	115441
Gene Ontology	Hyperlink
Gene Summary	This gene encodes the beta subunit of casein kinase II, a ubiquitous protein kinase which regulate s metabolic pathways, signal transduction, transcription, translation, and replication. The enzyme i s composed of three subunits, alpha, alpha prime and beta, which form a tetrameric holoenzyme. The alpha and alpha prime subunits are catalytic, while the beta subunit serves regulatory function s. The enzyme localizes to the endoplasmic reticulum and the Golgi apparatus. [provided by RefS eq

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Other Designations	Casein kinase II beta subunit|OTTHUMP00000029060|OTTHUMP00000029063|OTTHUMP00000029064|alternative name: G5a, phosvitin|phosvitin

Pathway

- Adherens junction
- Adherens junction
- Tight junction
- Tight junction
- Wnt signaling pathway
- Wnt signaling pathway

Disease

- Arthritis
- Bipolar Disorder
- Cardiovascular Diseases
- Cardiovascular Diseases
- Colorectal Neoplasms
- Diabetes Mellitus
- Diabetes Mellitus
- Edema
- Edema
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Lupus Erythematosus
- Osteoarthritis
- Psychiatric Status Rating Scales

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- Psychotic Disorders
- Schizophrenia

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