Recombinant Human S100B Protein (His Tag)

Catalog Number: PKSH033440

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

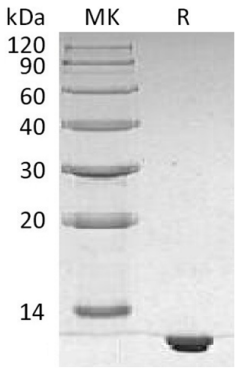
Description

Species	Human
Source	E.coli-derived Human S100B protein Met 1-Glu92, with an N-terminal His
Calculated MW	12.2 kDa
Observed MW	12 kDa
Accession	P04271
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

S100-B; is an acidic protein with a molecular weight of 21 kDa belonging to the S100 family. S100-B contains two EF-hand-type calcium-binding motifs separated by a hinge region with a hydrophobic cleft. S100-B plays an important role in neurodevelopment; differentiation; and brain construction. S100-B has neuroprotective effects; but at high concentrations S100-B is neurotoxic. Extracellular concentration of S100-B increases following brain damage; which easily penetrates into cerebrospinal fluid in brain damage and then into the blood. S100-B is expressed and produced by astrocytes in vertebrate brains and in the CNS; and the astrocytes are the major cells producing S100-B protein in gray matter; as well as oligodendrocytes are the predominant S100-B in protein producing cells in white matter. The major advantage of using S100-B is that elevations in serum or CSF levels provide a sensitive measure for determining CNS injury at the molecular level before gross changes develop; enabling timely delivery of crucial medical intervention before irreversible damage occurs. In addition; S100-B; which is also present in human melanocytes; is a reliable marker for melanoma malignancy both in bioptic tissue and in serum.