

Recombinant Human GAP43 Protein(Sumo Tag)

Catalog Number: PDEH100614

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

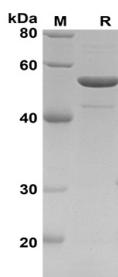
Description

Species	Human
Source	E.coli-derived Human GAP43 protein Met1-Ala238, with an N-terminal Sumo
Calculated MW	39 kDa
Observed MW	55 kDa
Accession	P17677-1
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg 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 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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 in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human GAP43 proteins, 2µg/lane of
Recombinant Human GAP43 proteins was resolved with
SDS-PAGE under reducing conditions, showing bands at 55
KD

Background

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Neuromodulin, also known as Axonal membrane protein GAP-43, Growth-associated protein 43, Neural phosphoprotein B-5, pp46 and GAP43, is a cell membrane protein which belongs to the neuromodulin family. Neuromodulin / GAP43 contains one IQ domain. Neuromodulin / GAP43 is associated with nerve growth. It is a major component of the motile "growth cones" that form the tips of elongating axons. Neuromodulin / GAP43 is involved in neurite outgrowth, a crucial process for the differentiation of neurons. The sudden infant death syndrome (SIDS) is the main cause of postneonatal infant death and its cause is still unknown. Neuromodulin / GAP43 is a marker of synaptic plasticity and is critical for normal development of the serotonergic innervation. Neuromodulin / GAP43 is a major cortical cytoskeleton-associated and calmodulin binding protein that is widely and abundantly expressed during development, maintained in selected brain structures in the adult, and reinduced during nerve regeneration. CAP23 and GAP43 are functionally related intrinsic determinants of anatomical plasticity. These proteins function by locally promoting subplasmalemmal actin cytoskeleton accumulation.