

Recombinant Human MAP2 Protein(Trx Tag)

Catalog Number: PDEH100647

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

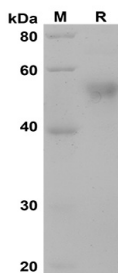
Description

Species	Human
Source	E.coli-derived Human MAP2 protein Met1-Asp230, with an N-terminal Trx
Calculated MW	45.3 kDa
Observed MW	50 kDa
Accession	P11137
Bio-activity	Not validated for activity

Properties

Purity	> 95% 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 MAP2 proteins, 2µg/lane of Recombinant Human MAP2 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 50 KD

Background

METAP2 (Methionine aminopeptidase 2), also known as MAP2 is a protein that belongs to the peptidase M24A family. MAP2 binds 2 cobalt or manganese ions and contains approximately 12 O-linked N-acetylglucosamine (GlcNAc) residues. It is found in all organisms and is especially important because of its critical role in tissue repair and protein degradation. The catalytic activity of human MAP2 toward Met-Val peptides is consistently two orders of magnitude higher than that of METAP1, suggesting that it is responsible for processing proteins containing N-terminal Met-Val and Met-Thr sequences in vivo. This protein functions both by protecting the alpha subunit of eukaryotic initiation factor 2 from inhibitory phosphorylation and by removing the amino-terminal methionine residue from nascent protein. MAP2 protects eukaryotic initiation factor EIF2S1 from translation-inhibiting phosphorylation by inhibitory kinases such as EIF2AK2/PKR and EIF2AK1/HCR. It also plays a critical role in the regulation of protein synthesis.