## Recombinant Mouse METAP2 Protein (His Tag)

## Catalog Number: PKSM040634

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

Description	
Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse METAP2 protein Ala 2-Tyr 478, with an C-
	terminal His
Calculated MW	54.3 kDa
Observed MW	60 kDa
Accession	O08663
Bio-activity	Measured by its ability to remove methionine from a fluorogenic peptide substrate H-
	Met-Gly-Pro-AMC (Catalog # ES017). The resulting GP-AMC is cleaved by
	Recombinant Human DPPIV/CD26 (Catalog # 1180-SE). The specific activity is > 15
	pmol/min/¦Ìg
Properties	
Purity	> 88 % 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
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol
	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



> 88 % as determined by reducing SDS-PAGE.

## Background

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METAP2 (Methionine aminopeptidase 2), also known as MAP2 is a a protein which 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.