

Active Recombinant Pan-species MBP Protein, His-tagged

Cat. No. MBP-2755P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Pan-species MBP Protein(27-392 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Pan-species
Source	E.coli
ProteinLength	27-392 aa
Form	PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.
Bio-activity	Maltose binding protein (MBP) encoded by the malE gene in Escherichia coli, is a 44-kD monomeric periplasmic protein. MBP is component of the Escherichia coli maltose/maltodextrin system, which regulates the uptake and catabolism of maltodextrins as part of the chemotactic response. This protein is used in recombinant protein expression as an affinity and solubility tag. Glutathione S Transferase Alpha 3 (GSTa3) has been identified as an interactor of MBP, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant MBP and recombinant mouse GSTa3. Briefly, biotin-linked MBP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to GSTa3-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µstop solution to the

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

wells and read at 450 nm immediately. The binding activity of recombinant MBP and recombinant mouse GSTa3 was shown, the EC50 for this effect is 0.46 ug/mL.

Molecular Mass	50.0kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 month.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
UniProt ID-Weblink	https://www.uniprot.org/uniprot/

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