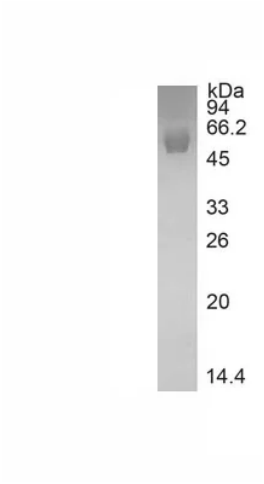
Active Maltose Binding Protein (MBP)

Catalog#:PEV13013

概述（Summary）

纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Lys27-Thr392】
Accession #	P0AEX9
表达宿主（Host）	E.coli
种属（Species）	Pan-species (General)
预测分子量（Predicted MW）	50.0 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Part of the ABC transporter complex MalEFGK involved in maltose/maltodextrin import. Binds maltose and higher maltodextrins such as maltotriose.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

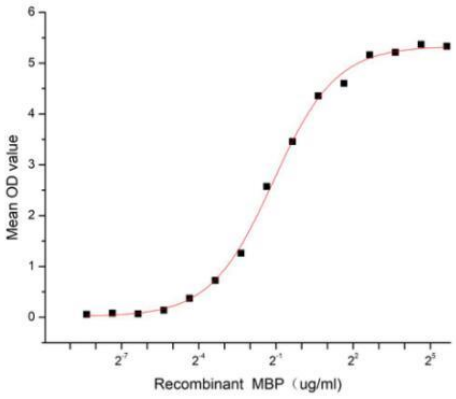


Figure 1. The binding activity of recombinant MBP and recombinant mouse GSTa3

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 maltrodextrins 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℃. 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℃. Finally, add 50 µl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant MBP and recombinant mouse GSTa3 was shown in Figure 1, the EC50 for this effect is 0.46 ug/mL.

注意事项（Note）

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