

Bone Morphogenetic Protein Receptor 2 (BMPR2) Active Protein | BMPR2 active protein

Active Bone Morphogenetic Protein Receptor 2 (BMPR2)

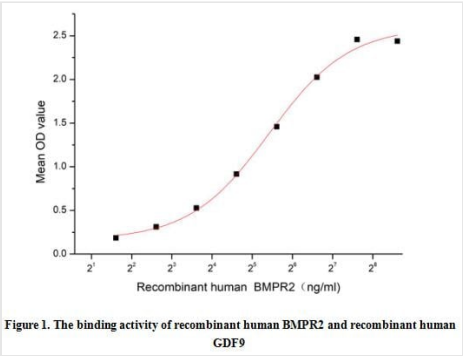
CATALOG # AAA161656	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Bone Morphogenetic Protein Receptor 2 (BMPR2); Active Bone Morphogenetic Protein Receptor 2 (BMPR2); Bone Morphogenetic Protein Receptor 2; BMPRII; BMPRII; BRK3; T-ALK; BMPR3; PPH1; Primary Pulmonary Hypertension 1; BMP type II receptor4; BMPR2 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ser27~Thr1 50
Applicable Applications for BMPR2 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	4.9
Research Area	Signal transduction, CD & Adhesion molecule, Developmental science
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

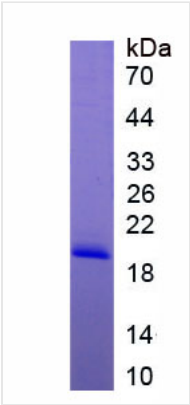


Bioactivity

Bone Morphogenetic Protein Receptor 2 (BMPR2) is a member of the bone morphogenetic protein (BMP) receptor family of transmembrane serine/threonine kinases. BMPR2 is a TGFbeta type II receptor expressed on cumulus cells. Growth Differentiation Factor 9 (GDF9) can bind to BMPR2 through different type I receptors, thereby regulating downstream metabolic reactions. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human BMPR2 and recombinant human GDF9. Briefly, biotin-linked BMPR2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to GDF9-coated microtiter wells and incubated for 1h at 37 degree 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 degree C. Finally, add 50 ul stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human BMPR2 and recombinant human GDF9 was shown in Figure 1, the EC50 for this effect is 42.87 ng/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for BMPR2 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	15451916
NCBI GeneID	659
NCBI Accession #	NP_001195.2
NCBI GenBank Nucleotide #	NM_001204.6
UniProt Accession #	Q13873; Q16569; Q4ZG08; Q53SA5; Q585T8
Molecular Weight	115,201 Da
NCBI Official Full Name	bone morphogenetic protein receptor type-2
NCBI Official Synonym Full Names	bone morphogenetic protein receptor, type II (serine/threonine kinase)
NCBI Official Symbol	BMPR2
NCBI Official Synonym Symbols	BMR2; PPH1; BMPR3; BRK-3; T-ALK; BMPR-II
NCBI Protein Information	bone morphogenetic protein receptor type-2; BMPR-2; BMP type-2 receptor; BMP type II receptor; type II activin receptor-like kinase; bone morphogenetic protein receptor type II; type II receptor for bone morphogenetic protein-4
UniProt Protein Name	Bone morphogenetic protein receptor type-2
UniProt Gene Name	BMPR2
UniProt Synonym Gene Names	PPH1; BMP type-2 receptor; BMPR-2; BMP type II receptor; BMPR-II
UniProt Entry Name	BMPR2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/bone-morphogenetic-protein-receptor-2-bmpr2/161656>