

Recombinant Human Bone Morphogenetic Protein Receptor Type 1A (rh BMPR1A / CD292)

Synonyms: Serine/threonine-protein kinase receptor R5, SKR5, Activin receptor-like kinase 3, ALK-3, CD292 antigen.

Introduction: The bone morphogenetic protein (BMP) receptors are a family of transmembrane serine/threonine kinases that include the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. These receptors are also closely related to the Activin receptors, ACVR1 and ACVR2. The ligands of these receptors are members of the TGF-beta superfamily. TGF-betas and Activins transduce their signals through the formation of heteromeric complexes with 2 different types of serine (threonine) kinase receptors: type I receptors of about 50-55 kD and type II receptors of about 70-80 kD. Type II receptors bind ligands in the absence of type I receptors, but they require their respective type I receptors for signaling, whereas type I receptors require their respective type II receptors for ligand binding.

Description: Recombinant human BMPR1A / CD292 extracellular domain produced in baculovirus is a monomeric, glycosylated, Polypeptide chain fused with 6xHis tag at C-terminus and having a molecular mass of 23 kDa.

The BMR1A /CD292 is purified by proprietary chromatographic techniques.

Source: *Insect cells.*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: lyophilized from a concentrated (1mg/ml) sterile solution containing 1X PBS
The aliquots of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized BMPR1A/CD292 in sterile PBS not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh BMPR1A / CD292 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh BMPR1A / CD292 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSS or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 90.0% as determined by

- a) Analysis by RP-HPLC
- b) Analysis by SDS-PAGE.

Biological Activity: Measured by its ability to inhibit recombinant human BMP-2 induced alkaline phosphatase production by C2C12 myogenic cells. The ED50 for this effect is typically 1-3 µg/ml in the presence of 500 ng/ml of recombinant human BMP-2 corresponding to a specific activity of 2,000 IU/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11344512
<i>medium</i>	10 µg	Cat.N°	11344513

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