

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BMPR-II in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human (rh) BMPR-IA and rhBMPR-1B is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BMPR-II Ala26-Ile151 Accession # Q13873
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human BMPR-II Fc Chimera (Catalog # 811-BR)
Flow Cytometry	2.5 µg/10 ⁶ cells	PC-3 human prostate carcinoma cell line
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human prostate

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Like other members of the TGF-β superfamily, cellular responses to bone morphogenetic proteins (BMPs) have been shown to be mediated by the binding to heteromeric complex of type I and type II serine-threonine kinase receptors. Both receptor types are required for the signal transduction. BMP receptor II (BMPR-II) is one of the five mammalian type II receptors (including TGF-βR-II, ActR-II, ActR-IIB, BMPR-II and MISR-II) for the TGF-β superfamily ligands. The type II receptors for TGF-β and activin bind ligands with high affinity by itself. In contrast, BMPR-II binds BMP-2, BMP-4 and BMP-7 weakly in the absence of type I receptor, and the binding can be facilitated by the presence of the type I receptor. BMPR-II mRNA is widely expressed in fetal and adult tissues. Human and mouse BMPR-II are highly conserved sharing 97% sequence identity.

References:

1. Rosenzweig, B.L. *et al.* (1995) Proc. Natl. Acad. Sci. USA **92**:7632.
2. Beppu, H. *et al.* (1997) Biochem. Biophys. Res. Commun. **235**:499.
3. Kawabata, M. *et al.* (1998) Cytokine and Growth Factor Reviews **9**:49.