

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BMPR-II in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) BMPR-IA, recombinant mouse (rm) BMPR-IA, rhBMPR-IB, and rmBMPR-IB 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 Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

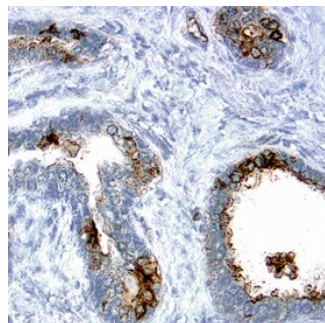
APPLICATIONS

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	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

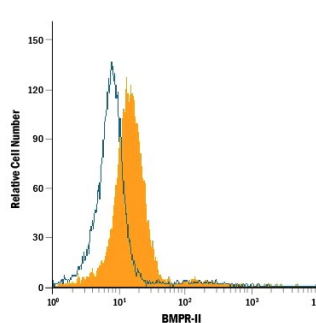
DATA

Immunohistochemistry



BMPR-II in Human Prostate. BMPR-II was detected in formalin fixed paraffin-embedded sections of human prostate using Goat Anti-Human BMPR-II Antigen Affinity-purified Polyclonal Antibody (Catalog # AF811) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to the plasma membrane of epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Flow Cytometry



Detection of BMPR-II in PC-3 Human Cell Line by Flow Cytometry. PC-3 human prostate cancer cell line was stained with Goat Anti-Human BMPR-II Antigen Affinity-purified Polyclonal Antibody (Catalog # AF811, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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 (1-3).

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.