

## Product datasheet for **TA328616**

### Bombesin Receptor 3 (BRS3) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)SNVYTFRDPNKNMTFE, corresponding to amino acid residues 186-201 of human BB3. 2nd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	bombesin like receptor 3
Database Link:	<a href="#">NP_001718</a> <a href="#">Entrez Gene 12209 Mouse</a> <a href="#">Entrez Gene 260319 Rat</a> <a href="#">Entrez Gene 680 Human</a> <a href="#">P32247</a>



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**Background:**

Bombesin receptor 3 (BB3) is a member of a family of receptors that binds the 14 amino acid peptide bombesin. Bombesin was first isolated from frog skin and it was later established that mammals express endogenous bombesin like peptides such as gastrin-releasing peptide (GRP) a 27 amino acid homologue and neuromedin B (NMB) a 10 amino acid homologue. BB1 is the preferred receptor for NMB while BB2 is the preferred receptor for GRP. BB3 was the third member of the bombesin receptors family to be cloned based in its sequence similarity to BB1 and BB2. The affinity of BB3 for bombesin is lower than that of the BB1 and BB2 receptors as is its affinity for NMB and GRP. This suggests that the mammalian endogenous ligand for the BB3 receptor remains to be identified. All three bombesin receptors are members of the 7-transmembrane domain, G protein-coupled receptor (GPCR) superfamily. BB3 is coupled to a Gq/11 protein that activates phospholipase C (PLC) and leads to production of inositol 1,4,5-trisphosphate (InsP3), intracellular Ca<sup>2+</sup> mobilization and cell growth. The physiological function of the BB3 receptor is not clear. However, studies with BB3 receptor deficient mice have shown that the mice develop mild obesity associated with hypertension and reduced metabolic rate. Finally, BB3 receptor expression has been identified in several human tumors most notably lung. BB3 is therefore considered a potential target for the development of both diagnostics and anti-cancer therapies.

**Synonyms:**

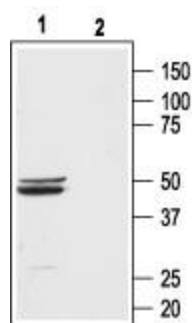
BB3; BB3R

**Protein Families:**

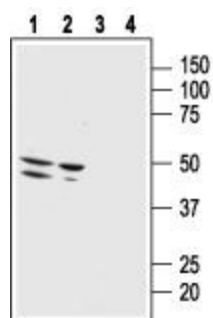
Druggable Genome, GPCR, Transmembrane

**Protein Pathways:**

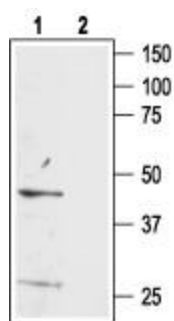
Neuroactive ligand-receptor interaction

**Product images:**

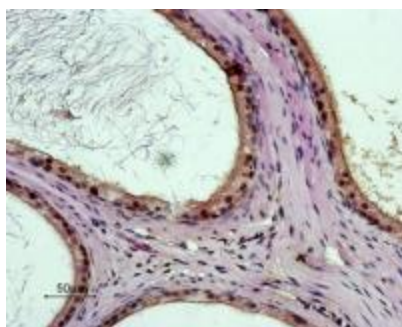
Western blot analysis of rat brain membranes: 1. Anti-Bombesin Receptor 3 (extracellular) antibody, (1:200). 2. Anti-Bombesin Receptor 3 (extracellular) antibody, preincubated with the control peptide antigen.



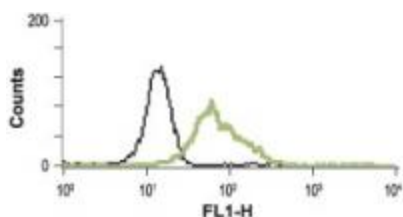
Western blot analysis of human malignant melanoma cell line Malme-3M (lanes 1 and 3) and human normal skin fibroblast cell line Malme-3 (lanes 2 and 4): 1, 2. Anti-Bombesin Receptor 3 (extracellular) antibody, (1:500). 3, 4. Anti-Bombesin Receptor 3 (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of mouse brain lysate: 1. Anti-Bombesin Receptor 3 (extracellular) antibody, (1:200). 2. Anti-Bombesin Receptor 3 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Bombesin Receptor 3 in rat testes. Immunohistochemical staining of paraffin embedded rat testes section using Anti-Bombesin Receptor 3 (extracellular) antibody, (1:50). The area of the efferent ductules near the epididymis is shown. Intense stain (brown) is specific for the pseudostratified epithelium of the efferent ductules. DAB is used for the color reaction. H&E is used as the counterstain.



Indirect flow cytometry analysis in human promyelocytic leukemia HL-60 cells: black line, Unstained cells + goat-anti-rabbit-FITC. green line, Cells + Anti-Bombesin Receptor 3 (extracellular) antibody, (5 µg) + goat-anti-rabbit-FITC.