

**Phospho-β-Arrestin-1 (pS412) Rabbit Monoclonal Antibody  
Product Data Sheet**

**Catalog #1109-1**

**Lot #:** please refer to product vial

**Quantity:** 100 µl

**Type:** Rabbit Monoclonal IgG

**Species Cross-reactivity:** + Human n/d Mouse n/d Rat

**Applications:** + WB + IHC + ICC + Flow Cytometry + IP

**Molecular Wt.:** 50 kDa

**UniProt ID:** P49407

**Background:** β-arrestin-1 is a member of the arrestin family that regulates beta-adrenergic receptor function. Beta-arrestins seem to mediate the desensitization and internalization of G protein-coupled receptors (1). Phosphorylation by Erk1/2 at Serine 412 of the C-terminus is necessary to activate β-arrestin-1 (2). Expanded roles for β-arrestin-1 have been studied. Interaction with molecules such as clathrin, AP-2 and NSF directs the clathrin-mediated internalization of G-protein-coupled receptors. Interaction with molecules such as Src, Raf, Erk, ASK1 and JNK3 appears to regulate several pathways that result in the activation of MAP kinases (3,4).

**Specificity:** A synthetic phospho-peptide corresponding to residues surrounding Ser412 of human β-Arrestin-1 was used as immunogen. The antibody only detects β-Arrestin-1 phosphorylated on Serine 412.

**Storage Conditions:** Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide. Stable for 12 months from date of receipt.

**Recommended Dilutions:**

WB: 1:20,000

IHC: 1:500 (antigen retrieval required)

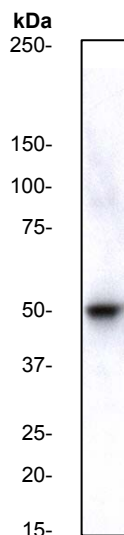
ICC: 1:100–1:250

IP: 1:100

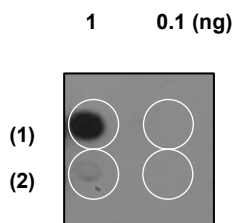
**Background References:**

1. Lefkowitz, R.J. G protein-coupled receptors. III. New roles for receptor kinases and beta-arrestins in receptor signaling and desensitization. *J. Biol. Chem.* 273: 18677–18680 (1998).
2. Lin, F.T., et al. Feedback regulation of beta-arrestin1 function by extracellular signal-regulated kinases. *J. Biol. Chem.* 274: 15971–15974 (1999).
3. Lin, F.T., et al. beta-arrestins regulate mitogenic signaling and clathrin-mediated endocytosis of the insulin-like growth factor I receptor. *J Biol Chem.* 273: 31640–3 (1998).
4. Miller, W.E., and R.J. Lefkowitz. Expanding roles for beta-arrestins as scaffolds and adapters in GPCR signaling and trafficking. *Curr Opin Cell Biol.* 13: 139–45 (2001).

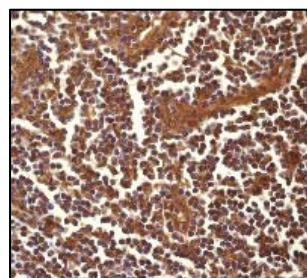
Product QC'd by: \_\_\_\_\_



**Fig 1.** Western blot analysis on 293T cell lysate using anti-Phospho-β-Arrestin-1 (pS412) RabMAB (cat. #1109-1); dilution 1:20,000.



**Fig 2.** Dot blot analysis on antigen peptide. A nitrocellulose membrane was spotted with (1) phospho-peptide and (2) non-phospho-peptide at 1 and 0.1 ng, and then blotted with anti-Phospho-β-Arrestin-1 (pS412) RabMAB (cat. #1109-1); dilution 1:1,000.



**Fig 3.** Immunohistochemical analysis of paraffin-embedded human lymph node using anti-Phospho-β-Arrestin-1 (pS412) RabMAB (cat. #1109-1).

**For research use only. Not for use in diagnostic or therapeutic applications.**

This product was manufactured under US Patents No. 5,675,063 and 5,599,681. For a complete list of protocols and available related products, please visit [www.epitomics.com](http://www.epitomics.com).