

**Phospho Ser862 mGluR7 Antibody**  
**Affinity purified rabbit polyclonal antibody**  
**Catalog # AN1202**

**Specification**

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**Phospho Ser862 mGluR7 Antibody - Product Information**

Application	FC, WB
Primary Accession	<a href="#">P35400</a>
Reactivity	Mouse, Rat
Predicted	Bovine, Human, Monkey, Zebrafish
Host	Rabbit
Clonality	polyclonal
Calculated MW	102 KDa

**Phospho Ser862 mGluR7 Antibody - Additional Information**

Gene ID	81672
Gene Name	GRM7
<b>Other Names</b>	
Metabotropic glutamate receptor 7, mGluR7, Grm7, Gprc1g, Mglur7	

**Target/Specificity**

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser862 conjugated to KLH.

**Dilution**

FC~~1:500  
WB~~ 1:1000

**Format**

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho and dephospho-peptide columns.

**Antibody Specificity**

Specific for the ~102k mGluR7 protein phosphorylated at Ser862. Immunolabeling is blocked by preadsorption of antibody with the phospho-peptide used as antigen but not by the corresponding dephosphopeptide.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho Ser862 mGluR7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

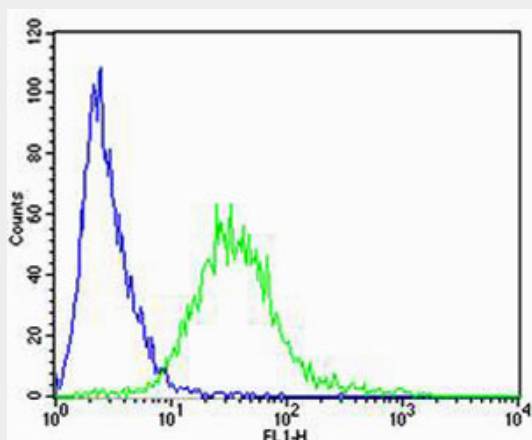
Blue Ice

## Phospho Ser862 mGluR7 Antibody - Protocols

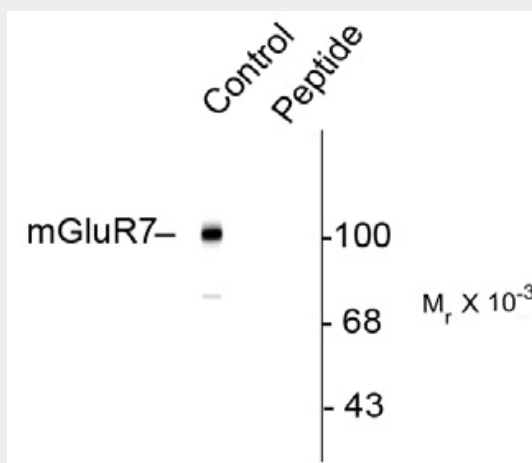
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Phospho Ser862 mGluR7 Antibody - Images



Flow cytometric analysis of SH-SY5Y cells using Phospho Ser862 mGluR7 Antibody (green, Cat#AN1202) compared to an isotype control of rabbit IgG (blue). AN1202 was diluted at 1:500 dilution. An Alexa Fluor® 488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.



Western blot of mouse brain lysate showing the specific immunolabeling of the ~102k mGluR7 protein phosphorylated at Ser862. Immunolabeling is blocked by the phospho-peptide used as antigen (peptide) but not by the corresponding dephospho-peptide (not shown).

## Phospho Ser862 mGluR7 Antibody - Background

Metabotropic glutamate receptors (mGluRs) are key receptors in the modulation of excitatory

synaptic transmission in the central nervous system. They are implicated in many forms of neural plasticity as well as learning and memory and drug abuse (Bhattacharya et al., 2004; Francesconi et al., 2004; Wilson and Nicoll, 2001). The mGluRs are divided into three groups based on sequence identity and pharmacological properties: group I (mGluR1 and mGluR5) are localized in the perisynaptic region of the postsynaptic membrane, whereas group II (mGluR2 and mGluR3) and group III (mGluR4,6,7 and 8) are localized predominantly at presynaptic terminals. PKC phosphorylation of serine 862 on mGluR7 has been shown to be critical for stabilizing receptor surface expression and promoting binding to the synaptic PDZ-domain-containing protein PICK1 (Suh et al., 2008).

#### **Phospho Ser862 mGluR7 Antibody - References**

- Bhattacharya M, Babwah AV, Godin C, Anborgh PH, Dale LB, Poulter MO, Ferguson SSG (2004) Ral and phospholipase D2-dependent pathway for constitutive metabotropic glutamate receptor endocytosis. *J Neurosci* 24:8752-8761.
- Francesconi W, Cammalleri M, Sanna PP (2004) The metabotropic glutamate receptor 5 is necessary for late-phase long-term potentiation in the hippocampal CA1 region. *Brain Res* 1022:12-18.
- Wilson RI, Nicoll RA (2001) Endogenous cannabinoids mediate retrograde signalling at hippocampal synapses. *Nature (London)* 410:588-592.
- Suh YH, Pelkey KA, Lavezzari G, Roche PA, Huganir RL, McBain CJ, Roche KW. (2008) Corequirement of PICK1 binding and PKC phosphorylation for stable surface expression of the metabotropic glutamate receptor mGluR7. *Neuron*. 58(5):736-48