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# ADD2 Antibody (Center) Blocking Peptide

**Synthetic peptide**
**Catalog # BP8677c**

## Specification

### ADD2 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P35612

### ADD2 Antibody (Center) Blocking Peptide - Additional Information

**Gene ID** 119

**Other Names**
Beta-adducin, Erythrocyte adducin subunit beta, ADD2, ADDB

**Target/Specificity**
The synthetic peptide sequence used to generate the antibody <a href=/products/AP8677c>AP8677c</a> was selected from the Center region of human ADD2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### ADD2 Antibody (Center) Blocking Peptide - Protein Information

**Name** ADD2

**Synonyms** ADDB

**Function**
Membrane-cytoskeleton-associated protein that promotes the assembly of the spectrin-actin network. Binds to the erythrocyte membrane receptor SLC2A1/GLUT1 and may therefore provide a link between the spectrin cytoskeleton to the plasma membrane. Binds to calmodulin. Calmodulin binds preferentially to the beta subunit.

**Cellular Location**
Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein; Cytoplasmic side

**Tissue Location**
Expressed mainly in brain, spleen, kidney cortex and medulla, and heart. Also expressed in human

umbilical vein endothelial cells, human vascular smooth muscle cells, kidney tubular cells and K-562 cell line.

### ADD2 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

### ADD2 Antibody (Center) Blocking Peptide - Images

### ADD2 Antibody (Center) Blocking Peptide - Background

Adducins are heteromeric proteins composed of different subunits referred to as adducin alpha, beta and gamma. The three subunits are encoded by distinct genes and belong to a family of membrane skeletal proteins involved in the assembly of spectrin-actin network in erythrocytes and at sites of cell-cell contact in epithelial tissues. While adducins alpha and gamma are ubiquitously expressed, the expression of adducin beta is restricted to brain and hematopoietic tissues. Adducin, originally purified from human erythrocytes, was found to be a heterodimer of adducins alpha and beta. Polymorphisms resulting in amino acid substitutions in these two subunits have been associated with the regulation of blood pressure in an animal model of hypertension. Heterodimers consisting of alpha and gamma subunits have also been described. Structurally, each subunit is comprised of two distinct domains. The amino-terminal region is protease resistant and globular in shape, while the carboxy-terminal region is protease sensitive. The latter contains multiple phosphorylation sites for protein kinase C, the binding site for calmodulin, and is required for association with spectrin and actin. Various adducin beta mRNAs, alternatively spliced at 3'end and/or internally spliced and encoding different isoforms, have been described. The functions of all the different isoforms are not known.

### ADD2 Antibody (Center) Blocking Peptide - References

Joshi,R.,et.al., J. Cell Biol. 115 (3), 665-675 (1991)Miyazaki,M., et.al., Brain Res. Mol. Brain Res. 28 (1), 29-36 (1995)