

**DRP-2 Monoclonal Antibody Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1131a****Specification**

---

**DRP-2 Monoclonal Antibody Blocking Peptide - Product Information**Other Accession [Q16555](#)**DRP-2 Monoclonal Antibody Blocking Peptide - Additional Information****Target/Specificity**

The synthetic peptide sequence used to generate the antibody AM1131a was selected from the region of human DRP-2 Monoclonal. 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.

**DRP-2 Monoclonal Antibody Blocking Peptide - Protein Information****DRP-2 Monoclonal Antibody Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**DRP-2 Monoclonal Antibody Blocking Peptide - Images****DRP-2 Monoclonal Antibody Blocking Peptide - Background**

DRP-2, also known as collapsin response mediator protein-2 (CRMP-2), is expressed at high levels in the developing nervous system and plays a critical role in axonal outgrowth by specifying axon/dendrite fate and establishing neuronal polarity (1,2). CRMP-2 enhances axon elongation and branching by binding to tubulin heterodimers to promote microtubule assembly (3). GSK-3 $\beta$  inactivates CRMP-2 by phosphorylating it at Thr514. CRMP-2 is primed following phosphorylation at Ser522 by CDK5 and at Thr518 by GSK-3 $\beta$  (2). Phosphorylation of CRMP-2, which decreases tubulin binding ability, can be inhibited by NT-3 and BDNF through the PI3 kinase/Akt pathway (2). CRMP-2 also mediates semaphorin-induced growth cone collapse (4). Hyperphosphorylation of CRMP-2 and is found in Alzheimer disease plaques with concurrent elevated GSK-3 $\beta$  activity in these patients (5).

## **DRP-2 Monoclonal Antibody Blocking Peptide - References**

Hamajima,N., Gene 180 (1-2), 157-163 (1996)