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Anti-EB3 (Ser-176), Phosphospecific Antibody
Catalog # AN1759

Specification

Anti-EB3 (Ser-176), Phosphospecific Antibody - Product Information

Primary Accession	Q9UPY8
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**31982**

Anti-EB3 (Ser-176), Phosphospecific Antibody - Additional Information

Gene ID **22924**

Other Names
Microtubule RP/EB, MAPRE3, APC, EB3, End-binding. RP3

Target/Specificity
Microtubles (MTs) are oriented with a fast growing plus-end and a slower growing minus-end. The MT plus-end is a crucial site for the regulation of MT dynamics and MT association with different cellular organelles by several groups of plus-end tracking proteins (+TIPs). These +TIPs form comet-like accumulations at the plus ends of MTs to regulate MT dynamics and interactions. The End-Binding (EB) family of +TIPs includes EB1 (MAPRE1), EB2 (MAPRE2, RP1), and EB3 (MAPRE3, EBF3). EB proteins are ubiquitiously expressed +TIPs that can dimerize through a coiled-coil C-terminal region, and bind MTs through an N-terminal calponin homology domain. EB proteins can stabilize MTs, increase MT dynamics, and suppress MT pauses. Site specific phosphorylation may regulate EB activity. EB3 Ser-162 phosphorylation destabilizes EB3 dimer and reduces MT growth, while aurora-kinase induced Ser-176 phosphorylation regulates EB3 protein stability during mitosis.

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
Anti-EB3 (Ser-176), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-EB3 (Ser-176), Phosphospecific Antibody - Protocols

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

- Western Blot
- Blocking Peptides

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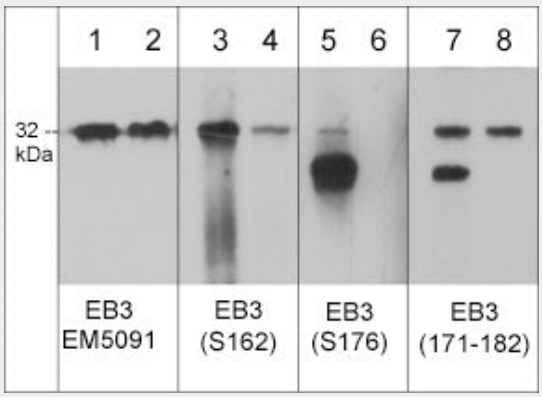
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-EB3 (Ser-176), Phosphospecific Antibody - Images



Western blot analysis of adult mouse brain untreated (lanes 1, 3, 5, & 7) or treated with lambda phosphatase (lanes 2, 4, 6, & 8). The blots were probed with rat monoclonal anti-EB3 (EM5091) (lanes 1 & 2), and rabbit polyclonals anti-EB3 (Ser-162) (lanes 3 & 4), anti-EB3 (Ser-176) (lanes 5 & 6), and anti-EB3 (a.a. 171-182) (lanes 7 & 8).

Anti-EB3 (Ser-176), Phosphospecific Antibody - Background

Microtubles (MTs) are oriented with a fast growing plus-end and a slower growing minus-end. The MT plus-end is a crucial site for the regulation of MT dynamics and MT association with different cellular organelles by several groups of plus-end tracking proteins (+TIPs). These +TIPs form comet-like accumulations at the plus ends of MTs to regulate MT dynamics and interactions. The End-Binding (EB) family of +TIPs includes EB1 (MAPRE1), EB2 (MAPRE2, RP1), and EB3 (MAPRE3, EBF3). EB proteins are ubiquitiously expressed +TIPs that can dimerize through a coiled-coil C-terminal region, and bind MTs through an N-terminal calponin homology domain. EB proteins can stabilize MTs, increase MT dynamics, and suppress MT pauses. Site specific phosphorylation may regulate EB activity. EB3 Ser-162 phosphorylation destabilizes EB3 dimer and reduces MT growth, while aurora-kinase induced Ser-176 phosphorylation regulates EB3 protein stability during mitosis.