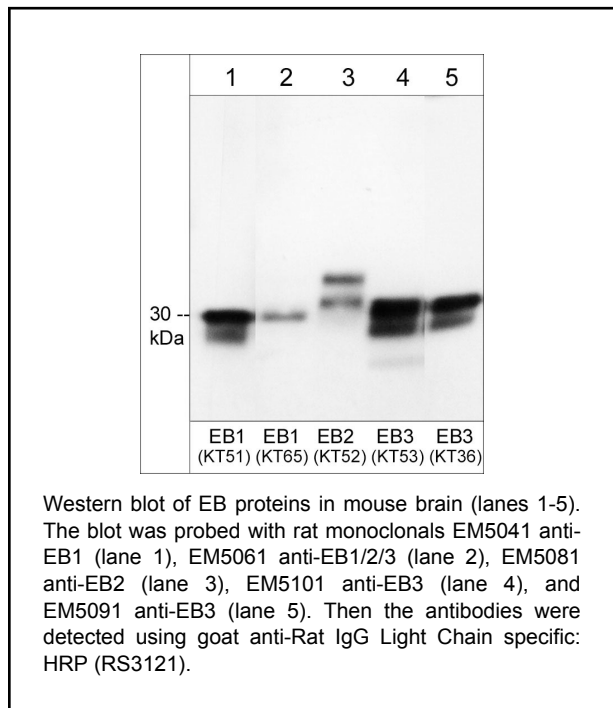


Background

Microtubules (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 +TIPs include diverse groups of proteins, such as motor and nonmotor proteins, MT polymerases and depolymerases as well as various regulatory and adaptor proteins. The End-Binding (EB) family of +TIPs includes EB1 (MAPRE1), EB2 (MAPRE2, RP1), and EB3 (MAPRE3, EBF3). EB proteins are ubiquitously 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. These activities of EB proteins are important for mitotic spindle formation and chromosome alignment during mitosis, and may have important roles in the centrosome and cilia assembly.

Background References

Gouveia, S.M. & Akhmanova, A. (2010) *Int Rev Cell Mol Biol.* 285:1.
Komarova, Y. et al. (2012) *Mol Cell.* 48:914.



Applications

WB 1:1000
ELISA 1:2000
ICC 1:100

Species Reactivity

Hu, Rt, Ms

Specificity

The antibody detects a 32 kDa* protein corresponding to the molecular mass of EB3 on SDS-PAGE immunoblots of human HeLa cells and mouse brain tissue. The antibody also detects EB3 by immunocytochemistry in HeLa and A431 cells.

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Immunogen

Uniprot ID: Q6PER3

Clone KT53 was generated from a GST fusion protein containing human EB3. This sequence is highly conserved in rat and mouse EB3.

Buffer and Storage

Rat monoclonal antibody purified with protein G chromatography is supplied in 100µl phosphate-buffered saline and 0.05% sodium azide. Aliquot and Store at -20°C. Stable for 1 year.

Related Products

EM5041 EB1 (C-terminal region) Rat Monoclonal
EM5061 EB1/EB2/EB3 (C-terminal region) Rat Monoclonal
EK6680 EB1/2/3 Antibody Sampler Kit
EM5081 EB2 Rat Monoclonal
EM5091 EB3 Rat Monoclonal

Product References

Komarova, Y. et al. (2005) *Mol Biol Cell.* 16(11):5334.
WB, ICC: CHO-K1 cells

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