

Anti - human SMN

mouse monoclonal antibody 7B10

Lot #: 870

REV: 20100301

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immunoGlobe
Antikörpertechnik GmbH

Background information

The monoclonal antibody 7B10 was raised against the human survival of motor neuron (SMN) protein [1] and has been used extensively to purify and characterize the macromolecular SMN complex from cultured human cells [2]. The antibody binds with high affinity and specificity to its epitope, which comprises a sequence of up to 9 amino acids in the N-terminal part of human SMN. It allows the native elution of bound antigen with an excess of the cognate peptide. Via addition of the 7B10 epitope (*TagIt* epitope) to other proteins this purification strategy can also be exploited for purification of these fusion proteins and RNA-protein complexes from cells lacking this epitope on endogenous proteins, such as cells derived from *C. elegans* and *Drosophila* [3].

Antibody preparation and storage

Clone: 7B10, isotype IgG₁. 1.0 mg of purified antibody in PBS, without preservatives. Antibody concentration: 2.0 mg/ml. Vials have been overfilled by 10% to ensure complete recovery of the specified amount. Short term storage at 4°C, stable for six months from date of shipment when stored at -20°C. Avoid repeated freezing and thawing! Do not store in "frost-free" freezers.

Antigen

human survival of motor neuron (SMN) protein

Species cross-reactivity

human

Applications

Western (immuno) blotting, immunoprecipitation, and affinity purification of protein and RNA-protein complexes [2,3,4]

References

(*: papers referencing mAB 7B10)

- * [1] Meister G., Buhler D., Laggerbauer B., Zobawa M., Lottspeich F., Fischer U. (2000) Characterization of a nuclear 20S complex containing the survival of motor neurons (SMN) protein and a specific subset of spliceosomal Sm proteins. *Human Molecular Genetics* **9**: 1977-86.
- * [2] Otter S., Grimmmer M., Neuenkirchen N., Chari A., Sickmann A., Fischer U. (2007) A comprehensive interaction map of the human survival of motor neuron (SMN) complex. *J. Biol. Chem.* **282**: 5825-33.
- * [3] Kroiss M., Brünger K.M., Wiesner J., Grimmmer M., Sickmann A., Fischer U. (2009) Native purification of protein and RNA-protein complexes using a novel affinity procedure. *Fly* **3**:1-8.
- * [4] Meister G., Buhler D., Pillai R., Lottspeich F., Fischer U. (2001) A multiprotein complex mediates the ATP-dependent assembly of spliceosomal U snRNPs. *Nature Cell Biology* **11**: 945-49.

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