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Loading Control Detection Set Alpha-Tubulin, GAPDH

Cat. No.: PSI-1832

Western blot analysis of Alpha-tubulin in mouse brain tissue lysate with Alpha-tubulin antibody at (A) 0.5 and (B) 1 µg/ml.

Specifications

SPECIES REACTIVITY:	Human
IMMUNOGEN:	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
TESTED APPLICATIONS:	IF, WB
APPLICATIONS:	These polyclonal antibodies can be used for detection of Alpha-Tubulin and GAPDH by immunoblot at 0.5-2 µg/mL and Immunoflourescence.
SPECIFICITY:	The Alpha-Tubulin and GAPDH antibodies are human, mouse, and rat reactive. These antibodies are expected to also recognize chimpanzee, cow, dog, chicken, and zebrafish proteins. The Alpha-Tubulin antibody is also expected to recognize Xenopus and Drosophila proteins.

Properties

PURIFICATION:	Antibodies are supplied as affinity chromatography purified IgG.
PHYSICAL STATE:	Liquid
BUFFER:	PBS containing 0.02% sodium azide.
CONCENTRATION:	Antibody 1 mg/mL

STORAGE CONDITIONS:	Stable at 4˚C for three months, store at -20˚C for up to one year.

Additional Info

USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Background and References

BACKGROUND:	Loading controls are used in immunoblots to normalize the levels of protein detected by confirming that protein loading is the same across the gel. The expression levels of the loading control should not vary between the different sample lanes. Loading controls are usually proteins that exhibit high-level, constitutive expression in the cell type or sample. This ensures constant expression levels. Thus “housekeeping genes” such as Beta-actin, Alpha-tubulin, and GAPDH are frequently chosen for use as loading controls. Actin is a ubiquitous protein and a major component of the eukaryotic cytoskeleton. Globular tubulin subunits made up of alpha- and beta-tubulin heterodimers are the building blocks of microtubules, one of three types of cytosolic fibers that comprise the cytoskeleton. GAPDH is constitutively expressed at high levels in almost all tissues and cell lines, catalyzes the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD), an important energy-yielding step in carbohydrate metabolism.
REFERENCES:	1) Lambrechts A, Van Troys, M and Ampe C. The actin cytoskeleton in normal and pathological cell motility. Int. J. Biochem. Cell Biol. 2004; 36:1890-909.
	2) Tristan C, Shahani N, Sedlak TW, et al. The diverse functions of GAPDH: views from different subcellular compartments. Cell Signal. 2011; 23:317-23.
	3) McKean PG, Vaughan S, and Gull K. The extended tubulin family. J. Cell Sci. 2001; 114:2723-33.