

Instruction Manual

Catalog Number	PK-AB718-4287
Synonyms	LIS1 Antibody: Lissencephaly 1, platelet-activating factor acetylhydrolase, PAFAH
Description	Lissencephaly is a severe brain developmental disease characterized by the mislocalization of cortical neurons, a smooth cerebral surface, mental retardation, and seizures. Classical lissencephaly is caused by sporadic mutations in the LIS1 gene. While LIS1 is known to act in a pathway deactivating the lipid messenger platelet-activating factor, LIS1 forms a complex with Nudel and 14-3-3e which is then transported from neuronal cell bodies through the actions of DISC1 and KIF5A, a microtubule-dependent directed motor protein kinesin. Decreased expression of LIS1 blocked neural stem cell division, morphogenesis, and motility, suggesting that LIS1 plays an important role in neuronal cell proliferation and localization in the developing brain. At least two isoforms of LIS1 are known to exist.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	LIS1 antibody was raised in rabbits against an 14 amino acid peptide from near the carboxy terminus of human LIS1.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, ICC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. LIS1 antibody can be used for detection of LIS1 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	McManus MF and Golden JA. Neuronal migration in developmental disorders. <i>J. Child Neurol.</i> 2005; 20:280-6. Reiner O, Carrozzo R, Shen Y, et al. Isolation of a Miller-Dieker lissencephaly gene containing G protein b-subunit-like repeats. <i>Nature</i> 1993; 364:717-21. Hattori M, Adachi H, Tsujimoto M, et al. Miller-Dieker lissencephaly gene encodes a subunit of brain platelet activating factor. <i>Nature</i> 1994; 370:216-8. Taya S, Shinoda T, Tsuboi D, et al. DISC1 regulates the transport of the NUDEL/LIS1/14-3-3e complex through kinesin-1. <i>J. Neurosci.</i> 2007; 27:15-26.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4287P; LIS1 Peptide Cat.No. PK-AB718-1201; HeLa Cell Lysate

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