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LIN54 Antibody

Catalog # ASC11838

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q6MZP7
Other Accession	NP_919258, 169234719
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	79494
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	LIN54 antibody can be used for detection of LIN54 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunocytochemistry at 10 g/ml. For immunofluorescence start at 20 g/mL

Additional Information

Gene ID	132660
Other Names	Protein lin-54 homolog, CXC domain-containing protein 1, LIN54, CXCDC1, KIAA2037
Target/Specificity	LIN54; LIN54 antibody is human, mouse, and rat reactive. Multiple isoforms of LIN54 are known to exist.
Reconstitution & Storage	LIN54 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	LIN54 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LIN54
Synonyms	CXCDC1, KIAA2037
Function	Component of the DREAM complex, a multiprotein complex that can both act as a transcription activator or repressor depending on the context (PubMed:17531812, PubMed:17671431). In G0 phase, the complex binds to more than 800 promoters and is required for repression of E2F target genes (PubMed:17531812, PubMed:17671431). In S phase, the complex selectively binds to the promoters of G2/M genes whose products are required for mitosis and participates in their cell cycle dependent activation (PubMed:17531812, PubMed:17671431). In the complex, acts as a

DNA-binding protein that binds the promoter of CDK1 in a sequence- specific manner (PubMed:19725879). Specifically recognizes the consensus motif 5'-TTYRAA-3' in target DNA (PubMed:27465258).

Cellular Location Nucleus.

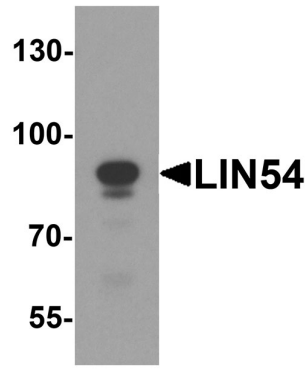
Background

LIN54 is a component of the LIN, or DREAM, complex, an essential regulator of cell cycle genes. This complex functions as a transcriptional repressor by binding to promoters of E2F target genes that regulate the G1/S transition (1). LIN54 is required for cell cycle progression and can bind to the cdc2 promoter in a sequence-specific manner (2).

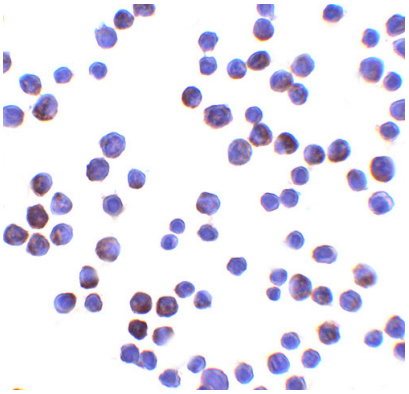
References

Schmit F, Cremer S, and Gaubatz S. LIN54 is an essential core subunit of the DREAM/LINC complex that binds to the cdc2 promotoer in a sequence-specific manner. FEBS J. 2009; 276:5703-16.
Matsuo T, Kuramoto H, Kumazaki T, et al. LIN54 harboring a mutation in CHC domain is localized to the cytoplasm and inhibits cell cycle progression. Cell Cycle 2012; 11:3227-36.

Images

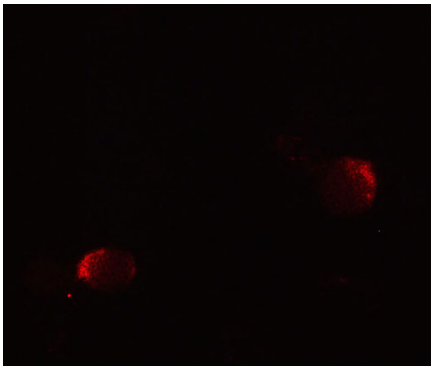


Western blot analysis of LIN54 in HeLa cell lysate with LIN54 antibody at 1 µg/ml.



Immunocytochemistry of LIN54 in HeLa cells with LIN54 antibody at 10 µg/ml.

Immunofluorescence of LIN54 in HeLa cells with LIN54 antibody at 20 µg/ml.



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