SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-HIC1 antibody

Catalog Number: SL15485R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	HIC1
Immunogen:	KLH conjugated synthetic peptide derived from human HIC1: 501-650/733
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse(predicted:Human,Rat,Chicken,Dog,Pig,Cow,Horse)
Predicted MW.:	76kDa
Subcellular Location:	The nucleus
Background:	Hypermethylated in cancer (HIC-1) was originally identified as a target of p53-induced gene expression. HIC-1 is deleted in the genetic disorder Miller-Dieker syndrome (MDS), and the expression of HIC-1 is also frequently suppressed in leukemia and various cancers due to the hypermethylation of specific DNA regions and the resulting transcriptional silencing. These and other studies indicate that HIC-1 acts as a putative tumor suppressor protein that mediates transcriptional repression. HIC-1 is ubiquitously expressed in adult tissues and its structure is defined by five zinc fingers and an N-terminal broad complex POZ (or BTB) domain. In several BTB/POZ containing proteins, including BCL-6 and the promyelocytic leukemia zinc-finger (PLZF) oncoprotein, this domain interacts with the SMRT/N-CoR-mSin3A HDAC complex and is directly involved in repressing and silencing gene transcription. When this domain is deleted, as with the oncogenic PLZF-RAR chimera of promyelocytic leukemias, this transcriptional repression is attenuated.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

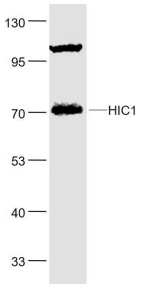
	Conversely, HIC-1 does not interact with components of the HDAC complex, suggesting that HIC-1-induced transcriptional repression is unassociated with the POZ/BTB domain. **Function:** Transcriptional repressor. Recognizes and binds to the consensus sequence '5-[CG]NG[CG]GGGCA[CA]CC-3'. May act as a tumor suppressor. May be involved in development of head, face, limbs and ventral body wall. Involved in down-regulation of SIRT1 and thereby is involved in regulation of p53/TP53-dependent apoptotic DNA-damage responses. The specific target gene promoter association seems to be depend on corepressors, such as CTBP1 or CTBP2 and MTA1. The regulation of SIRT1 transcription in response to nutrient deprivation seems to involve CTBP1. In cooperation with MTA1 (indicative for an association with the NuRD complex) represses transcription from CCND1/cyclin-D1 and CDKN1C/p57Kip2 specifically in quiescent cells. Involved in regulation of the Wnt signaling pathway probably by association with TCF7L2 and preventing TCF7L2 and CTNNB1 association with promoters of TCF-responsive genes. Seems to repress transcription from E2F1 and ATOH1 which involves ARID1A, indicative for the participation of a distinct SWI/SNF-type chromatin-remodeling complex. Probably represses transcription from CXCR7, FGFBP1 and EFNA1. **Subunit:** Self-associates. Interacts with HIC2. Interacts with CTBP1 and CTBP2. Interacts with TCF7L2 and ARID1A. Interacts with MTA1 and MBD3; indicative for an association with the NuRD complex. **Subcellular Location:** Nucleus. **Tissue Specificity:** Ubiquitously expressed with highest levels found in lung, colon, prostate, thymus, testis and ovary. Expression is absent or decreased in many tumor cells. **Post-translational modifications:** Acetylated on several residues, including Lys-333. Lys-333 is deacetylated by SIRT1. Sumoylated on Lys-333 by a PIAS family member, which enhances interaction with MTA1, positively regulates transcriptional repression activity and is enhanced by HDAC4. **Similarity:** Belongs to the krueppel C2H2-type zinc-finger protein family. Hic subfamily. Contains 1 BTB (POZ) domain. Contains 5 C2H2-type zinc fingers. **Database links:** **Entrez Gene:** 3090 Human Omim: 603825 Human

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	SwissProt: Q14526 Human **Unigene:** 695682 Human **Unigene:** 72956 Human

[VALIDATION IMAGES]



Sample:
Testis (Mouse) Lysate at 40 ug
Primary: Anti-HIC1 (SL15485R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 76 kD
Observed band size: 72 kD

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