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

[Primary Antibody]

Rabbit Anti-CDKL5 antibody

Catalog Number: SL11538R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	CDKL5
Immunogen:	KLH conjugated synthetic peptide derived from human CDKL5: 401-500/1030
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 IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted: Human, Mouse, Rat, Dog, Pig, Cow, Horse, Sheep)
Predicted MW.:	115kDa
Subcellular Location:	The nucleus
Background:	Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin-dependent kinases (Cdks). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression. Another family of proteins, Cdk inhibitors, also plays a role in regulating the cell cycle by binding to cyclin-Cdk complexes and modulating their activity. CDKL5 (cyclin-dependent kinase-like 5) is a 1030 amino acid protein that belongs to the CMGC Ser/Thr protein kinase family. Expressed in brain, lung, kidney, prostate, ovary, placenta, pancreas and testis, CDKL5 is thought to play a role in cell cycle regulation. Defects in CDKL5 are a cause of

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	several disorders, such as X-linked infantile spasm syndrome and Rett syndrome. **Function:** Mediates phosphorylation of MECP2. **Subunit:** Interacts with MECP2. **Subcellular Location:** Nucleus. **Tissue Specificity:** Expressed in brain, lung, kidney, prostate, ovary, placenta, pancreas and testis. **Post-translational modifications:** Autophosphorylated. DISEASE: Note=Chromosomal aberrations involving CDKL5 are found in patients manifesting early-onset seizures and spams and psychomotor impairment. Translocation t(X;6)(p22.3;q14); translocation t(X;7)(p22.3;p15). Defects in CDKL5 are a cause of epileptic encephalopathy early infantile type 2 (EIEE2) [MIM:300672]; also known as atypical CDKL5-related Rett syndrome. EIEE2 is a severe form of epilepsy characterized by seizures or spasms beginning in infancy. Patients manifest features resembling Rett syndrome such as microcephaly, lack of speech development, stereotypic hand movements. **Similarity:** Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain. **Database links:** **Entrez Gene:** 6792 Human **Entrez Gene:** 382253 Mouse Omim: 300203 Human **SwissProt:** O76039 Human **SwissProt:** Q3UTQ8 Mouse **Unigene:** 659851 Human **Unigene:** 443717 Mouse

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