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G2E3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18914C

Product Information

Application	WB, E
Primary Accession	Q7L622
Other Accession	Q4R9C4, NP_060239.2
Reactivity	Human
Predicted	Monkey, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30473
Calculated MW	80504
Antigen Region	226-252

Additional Information

Gene ID	55632
Other Names	G2/M phase-specific E3 ubiquitin-protein ligase, 632-, G2E3, KIAA1333
Target/Specificity	This G2E3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 226-252 amino acids from the Central region of human G2E3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	G2E3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	G2E3 {ECO:0000303|PubMed:17239372, ECO:0000312|HGNC:HGNC:20338}
Function	E3 ubiquitin-protein ligase involved in the establishment of constitutive heterochromatin at pericentric regions by catalyzing histone H3 'Lys-14' monoubiquitination (H3K14ub) (PubMed:41094145). H3K14ub represents a

	specific tag for heterochromatin formation by facilitating the deposition of histone H3 trimethylated at 'Lys-9' (H3K9me3) (PubMed:41094145). Highly expressed in G2/M phase and associates with mitotic chromosomes in an RNA-dependent manner to catalyze H3K14ub, thereby promoting recruitment of SUV39H (SUV39H1 and/or SUV39H2) and subsequent recruitment of HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones (PubMed:41094145).
Cellular Location	Nucleus. Chromosome Nucleus, nucleolus. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm (PubMed:17239372). In the nucleus, delocalizes from the nucleolus to the nucleoplasm in response to DNA damage (PubMed:17239372). Associates with mitotic chromosomes; enriched at pericentromeric heterochromatin (PubMed:41094145)
Tissue Location	Predominantly expressed in brain, liver, kidney, testes and ovary.

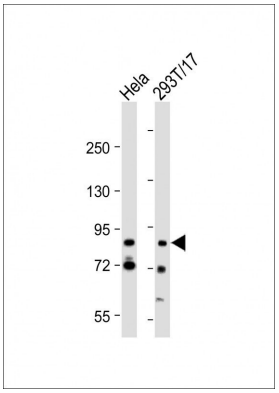
Background

E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Essential in early embryonic development to prevent apoptotic death.

References

Brooks, W.S., et al. J. Biol. Chem. 283(32):22304-22315(2008)
Brooks, W.S., et al. Exp. Cell Res. 313(4):665-676(2007)
Lehner, B., et al. Genomics 83(1):153-167(2004)
Crawford, D.F., et al. J. Biol. Chem. 276(40):37166-37177(2001)

Images



All lanes : Anti-G2E3 Antibody (Center) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: 293T/17 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 81 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.