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Store at -20C
#4726

p58 Primase (8D3) Rat mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R Hm Mk	Sensitivity: Endogenous	MW (kDa): 58	Source/Isotype: Rat IgG2a	UniProt ID: #P49643	Entrez-Gene Id: 5558
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:250

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

p58 Primase (8D3) Rat mAb detects endogenous levels of total p58 primase protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with full-length human recombinant p58 primase.

Background

Initiation of eukaryotic DNA replication is a stringently regulated process that requires the cooperation of many proteins and protein complexes to occur efficiently, at the origins of replication, and once per cell cycle. The initiation of DNA replication requires a protein complex composed of two DNA polymerase α subunits and a pair of primase subunits. Primase activity catalyzes *de novo* synthesis of an RNA/DNA primer (initiator DNA) on the leading and lagging strands, while polymerase activity extends the initiator DNA (1). The 48 and 58 kDa primase subunits cooperate in the synthesis of small RNA primers. p48 is the catalytically active subunit (2), while p58 couples p48 to the polymerase to allow the transfer of primers to the active site. The p58 subunit may also play a role in regulation of primer length (3,4).

Background References

1. Shiratori, A. et al. (1995) *Genomics* 28, 350-353.
2. Copeland, W.C. (1997) *Protein Expr. Purif.* 9, 1-9.
3. Copeland, W.C. and Wang, T.S. (1993) *J. Biol. Chem.* 268, 26179-26189.
4. Arezi, B. and Kuchta, R.D. (2000) *Trends Biochem. Sci.* 25, 572-576.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey

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