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Product Information

Anti-POLR2A
produced in rabbit, IgG fraction of antiserum

Catalog Number **SAB4200469**

Product Description
Anti-POLR2A is produced in rabbit using as immunogen a peptide corresponding to the N-terminal region of human POLR2A (GeneID: 5430), conjugated to KLH. The corresponding sequence is identical in mouse, rat, monkey, bovine, dog and pig. Whole antiserum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti- POLR2A recognizes human POLR2A. The antibody may be used in various immunochemical techniques including immunoblotting (~250 kDa), immunofluorescence and immunoprecipitation. Detection of the POLR2A band by immunoblotting is specifically inhibited by the immunizing peptide.

POLR2A is the largest subunit of RNA polymerase II, the polymerase responsible for the synthesis of messenger RNA in eukaryotes. POLR2A contains a carboxy-terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, this subunit, in combination with several other polymerase subunits, forms the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA.[1-4]

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8°C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working dilution of 1:2,000-1:4,000 is recommended using nuclear extracts of HeLa cells.

Immunoprecipitation: a working amount of 5-10 µL is recommended using a whole extract of human HeLa cells.

Immunofluorescence: a working dilution of 1:400-1:800 is recommended using human HeLa cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References
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3. Marshall, N.F., et al., *J. Biol. Chem.*, **271**, 27176-27183 (1996).
4. McCracken S., et al., *Nature*, **385**, 357-361 (1997).

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