

Recombinant Human DNA-directed RNA polymerase III subunit RPC1(POLR3A),partial

Catalog No: #AP70649

Package Size: #AP70649-1 20ug #AP70649-2 100ug #AP70649-3 1mg

Description

Product Name	Recombinant Human DNA-directed RNA polymerase III subunit RPC1(POLR3A),partial
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:392-632aaSequence Info:Partial
Other Names	DNA-directed RNA polymerase III largest subunitDNA-directed RNA polymerase III subunit ARNA polymerase III 155KDA subunit ;RPC155RNA polymerase III subunit C160
Accession No.	O14802
Calculated MW	43.4 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	FPEKVNKANINFLRKLQNGPEVHPGANFIQQRHTQMKRFLKYGNREKMAQELKYGDIVERHLIDGDVVLFNRR QPSLHKLSIMAHLARVKPHRTFRFNECVCTPYNADFDGDEMNLHLPQTEEAKAEALVLMGTKANLVTPRNGE PLIAAIQDFLTGAYLLTLKDTFFDRAKACQIIASILVGKDEKIKVRLPPPTILKPVTLLWTGKQIFSVILRPSSDDNPVR ANLRTKGKQYCGKGEDLC
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic core component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. Forms the polymerase active center together with the second largest subunit. A single-stranded DNA tplate strand of the promoter is positioned within the central active site cleft of Pol III. A bridging helix anates from RPC1 and crosses the cleft near the catalytic site and is thought to promote translocation of Pol III by acting as a ratchet that moves the RNA-DNA hybrid through the active site by switching from straight to bent conformations at each step of nucleotide addition . Plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as nuclear and cytosolic DNA sensor involved in innate immune response. Can sense non-self dsDNA that serves as tplate for transcription into dsRNA. The non-self RNA polymerase III transcripts, such as Epstein-Barr virus-encoded RNAs (EBERs) induce type I interferon and NF- Kappa-B through the RIG-I pathway.

References

The DNA sequence and comparative analysis of human chromosome 10.Deloukas P., Earthrowl M.E., Grafham D.V., Rubenfield M., French L., Steward C.A., Sims S.K., Jones M.C., Searle S., Scott C., Howe K., Hunt S.E., Andrews T.D., Gilbert J.G.R., Swarbreck D., Ashurst J.L., Taylor A., Battles J. , Bird C.P., Ainscough R., Almeida J.P., Ashwell R.I.S., Ambrose K.D., Babbage A.K., Bagguley C.L., Bailey J., Banerjee R., Bates K., Beasley H., Bray-Allen S., Brown A.J., Brown J.Y., Burford D.C., Burrill W., Burton J., Cahill P., Camire D., Carter N.P., Chapman J.C., Clark S.Y., Clarke G., Clee C.M., Clegg S., Corby N., Coulson A., Dhami P., Dutta I., Dunn M., Faulkner L., Frankish A., Frankland J.A., Garner P., Garnett J.,

Gribble S., Griffiths C., Grocock R., Gustafson E., Hammond S., Harley J.L., Hart E., Heath P.D., Ho T.P., Hopkins B., Horne J., Howden P.J., Huckle E., Hynds C., Johnson C., Johnson D., Kana A., Kay M., Kimberley A.M., Kershaw J.K., Kokkinaki M., Laird G.K., Lawlor S., Lee H.M., Leongamornlert D.A., Laird G., Lloyd C., Lloyd D.M., Loveland J., Lovell J., McLaren S., McLay K.E., McMurray A., Mashreghi-Mohammadi M., Matthews L., Milne S., Nickerson T., Nguyen M., Overton-Larty E., Palmer S.A., Pearce A.V., Peck A.I., Pelan S., Phillimore B., Porter K., Rice C.M., Rogosin A., Ross M.T., Sarafidou T., Sehra H.K., Shownkeen R., Skuce C.D., Smith M., Standing L., Sycamore N., Tester J., Thorpe A., Torcasso W., Tracey A., Tromans A., Tsolas J., Wall M., Walsh J., Wang H., Weinstock K., West A.P., Willey D.L., Whitehead S.L., Wilming L., Wray P.W., Young L., Chen Y., Lovering R.C., Moschonas N.K., Siebert R., Fechtel K., Bentley D., Durbin R.M., Hubbard T., Doucette-Stamm L., Beck S., Smith D.R., Rogers J. Nature 429:375-381(2004) Research Topic: Epigenetics and Nuclear Signaling

Note: This product is for in vitro research use only and is not intended for use in humans or animals.