

Direct-Blot™ HRP anti-*E. coli* RNA Sigma 70 Antibody

Catalog# / Size	663205 / 100 µL
Clone	2G10
Regulatory Status	RUO
Other Names	RNA pol sigma 70, rpoD, sigma D, RNA Polymerase
Isotype	Mouse IgG2b
Description	RNA polymerase transcribes DNA to synthesize RNA. Prokaryotes contain a single RNA polymerase- core RNA polymerase. RNA polymerase sigma 70 (also known as RNA pol sigma 70 and rpoD) is a part of a family of sigma factor subunits that are required for specific promoter recognition and initiation. RNA pol sigma 70 is the major housekeeping sigma factor responsible for RNA polymerase recognition out of the majority of promoters necessary to transcribe bacterial genes which are expressed during expansion.

Product Details

Reactivity	<i>E. coli</i> , <i>C. trachomatis</i> , <i>M. smegmatis</i> , <i>S. aureus</i> , <i>B. pertussis</i> , <i>R. sphaeroides</i> , <i>V. parahaemolyticus</i> , <i>P. aeruginosa</i> , <i>A. tumefaciens</i> , <i>S. faecalis</i> , <i>A. globiformis</i>
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant protein
Formulation	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	WB - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested dilution is 1:1000-1:4000. The optimal dilution should be determined by titration for each individual assay of interest. 25 µl and 100 µl of Direct-Blot™ HRP antibody can be used for approximately 5 and 20 Western blots, respectively, at the recommended concentration/dilution.
Application Notes	Clone 2G10 is extremely useful for identifying the major sigma factor from a variety of bacteria. It does not react with <i>Borellia burgdorferi</i> . Clone 2G10 recognizes epitope 470-486. Additional reported applications (for the relevant formats) include: functional assay and immunoprecipitation.
Application References	<ol style="list-style-type: none">1. Breyer MJ, <i>et al.</i> 1997. <i>J. Bacterial</i> 179:1404.2. Lesley SA, <i>et al.</i> 1989. <i>J. Biol. Chem.</i> 264:3794.3. Strickland MS, <i>et al.</i> 1988. <i>Biochemistry</i> 27:5755.
Product Citations	<ol style="list-style-type: none">1. Hughes KJ, <i>et al.</i> 2020. <i>Cell Rep.</i> 33:108527. PubMed2. Adams DW, <i>et al.</i> 2019. <i>Nat Microbiol.</i> 1.239583333. PubMed
RRID	AB_2629596 (BioLegend Cat. No. 663205)

Antigen Details

Structure	Sigma 70 (σ^{70}) is a 70 kD transcription factor of <i>E. coli</i> RNA polymerase.
Biology Area	Cell Biology, Transcription Factors
Molecular Family	Nuclear Markers
Gene ID	947567

Related Protocols

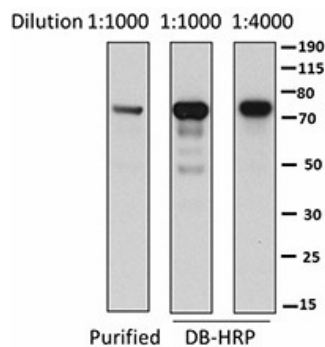
[Direct-Blot™ HRP Antibodies Save You Time - Video](#)

[Direct-Blot™ Western Blotting Protocol](#)

Other Formats

Direct-Blot™ HRP anti-*E. coli* RNA Sigma 70, Purified anti-*E. coli* RNA Sigma 70

Product Data



15 μ g of total protein extract from *E. coli* was resolved by electrophoresis, transferred to a nitrocellulose membrane, and probed with purified or Direct-Blot™ HRP (DB-HRP) anti-*E. coli* RNA Sigma 70 (clone 2G10). Proteins were visualized using chemiluminescence detection.

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