



# RNA pol $\sigma$ fecI (1FE16): sc-101610

## BACKGROUND

RNA polymerase transcribes DNA to synthesize RNA using the four ribonucleoside triphosphates as substrates. In prokaryotes, a catalytic core known as RNAP is formed from  $\alpha$ ,  $\beta$  and  $\sigma$  RNA pol subunits that, once complexed, can initiate transcription. RNA pol  $\sigma$  fecI is a 173 amino acid protein that belongs to the extracytoplasmic function subfamily of the *E. coli*  $\sigma$ -70 factor family of peptides.  $\sigma$  factors function as initiation factors that work together to promote the attachment of RNA polymerase to target initiation sites. RNA pol  $\sigma$  fecI has been demonstrated to specifically direct transcription of fec transport genes important in cellular regulation of ferric citrate.

## REFERENCES

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## SOURCE

RNA pol  $\sigma$  fecI (1FE16) is a mouse monoclonal antibody raised against RNA pol  $\sigma$  fecI of *E. coli* origin.

## PRODUCT

Each vial contains 100  $\mu$ l ascites containing IgG<sub>1</sub> with < 0.1% sodium azide.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution

by centrifugation.

## APPLICATIONS

RNA pol  $\sigma$  fecI (1FE16) is recommended for detection of RNA pol  $\sigma$  fecI of *E. coli* origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000) and immunoprecipitation [1-2  $\mu$ l per 100-500  $\mu$ g of total protein (1 ml of cell lysate)]; non cross-reactive with other *E. coli*  $\sigma$  factors.

Molecular Weight of RNA pol  $\sigma$  fecI: 19 kDa.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.