

Sigma 54 (Asigma54-33.7): sc-53957

BACKGROUND

Sigma 54 is a subunit of the bacterial RNA polymerase (RNAP). When combined with other sigma factors at RNAP, it allows for transcription activation. Sigma 54 binds to the bacterial DNA at the C-terminus. In Sigma 54-dependent genes, Sigma 54 plays an active role as a transcription regulator. In the plant pathogen *Pseudomonas syringae*, Sigma 54 is encoded by RpoN. In some organisms, the cellular amount of this molecule varies throughout its lifecycle or in response to changes in environmental pressures. Other organisms, such as *Pseudomonas putida*, maintain a relatively stable concentration of Sigma 54. In the organism *Pseudomonas alcaligenes*, Sigma 54 plays a large role in the regulation of many genes.

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SOURCE

Sigma 54 (Asigma54-33.7) is a mouse monoclonal antibody raised against recombinant Sigma 54 of *Aquifex aeolicus* VF5 origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Sigma 54 (Asigma54-33.7) is recommended for detection of Sigma 54 of *Aquifex aeolicus* VF5 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); non cross-reactive with MgrA (also designated Rat) or AgrA.

Molecular Weight of Sigma 54: 47 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.