

Egr-4 (U-25): sc-133540

BACKGROUND

Egr-1, Egr-2, Egr-3 and Egr-4 are nuclear transcription factors belonging to the Egr C₂H₂-type zinc-finger protein family and containing three C₂H₂-type zinc fingers. As immediate early proteins, Egr transcription factors are rapidly induced by diverse extracellular stimuli. They are subject to tight differential control through diverse mechanisms at several levels of regulation: transcriptional; translational and posttranslational (including glycosylation, phosphorylation and redox) mechanisms; and protein-protein interaction. Egr-1 binds to the DNA sequence 5'-CGCCCCCGC-3' (Egr-site), thereby activating transcription of target genes whose products are required for mitogenesis and differentiation. Egr-2 binds specific DNA sites located in the promoter region of HoxA4. Egr-2 defects cause congenital hypomyelination neuropathy (also designated Charcot-Marie-Tooth disease) and Dejerine-Sottas neuropathy (also designated hereditary motor and sensory neuropathy III). Egr-3 is involved in muscle spindle development and is expressed in T cells 20 minutes following activation. Egr-4 binds to the Egr consensus motif GCGTGGGCG, functions as a transcriptional repressor, and displays autoregulatory activities, downregulating its own gene promoter in a dose dependent manner.

REFERENCES

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3. Zipfel, P. F., et al. 1997. The human zinc finger protein Egr-4 acts as autoregulatory transcriptional repressor. *Biochim. Biophys. Acta* 1354: 134-144.
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9. SWISS-PROT/TrEMBL (P18146). World Wide Web URL: <http://www.uniprot.org/uniprot/P18146>

CHROMOSOMAL LOCATION

Genetic locus: EGR4 (human) mapping to 2p13.1; Egr4 (mouse) mapping to 6 C3.

SOURCE

Egr-4 (U-25) is an affinity purified rabbit polyclonal antibody raised against synthetic Egr-4 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

Egr-4 (U-25) is recommended for detection of Egr-4 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

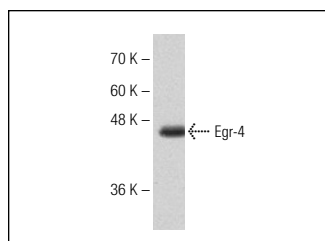
Suitable for use as control antibody for Egr-4 siRNA (h): sc-37829, Egr-4 siRNA (m): sc-37830, Egr-4 shRNA Plasmid (h): sc-37829-SH, Egr-4 shRNA Plasmid (m): sc-37830-SH, Egr-4 shRNA (h) Lentiviral Particles: sc-37829-V and Egr-4 shRNA (m) Lentiviral Particles: sc-37830-V.

Molecular Weight (predicted) of Egr-4: 51 kDa.

Molecular Weight (observed) of Egr-4: 46 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

DATA



Egr-4 (U-25): sc-133540. Western blot analysis of Egr-4 expression in Jurkat whole cell lysate.

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 or our catalog for detailed protocols and support products.