**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'-CGCCC CGC-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 CGGTGGGCG, functions as a transcriptional repressor, and displays autoregulatory activities, downregulating its own gene promoter in a dose dependent manner.

**CHROMOSOMAL LOCATION**

Genetic locus: EGR1 (human) mapping to 5q31.2; Egr1 (mouse) mapping to 18 B1.

**SOURCE**

Egr-1 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 524-543 at the C-terminus of Egr-1 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG κ kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515830 X, 200 µg/0.1 ml.

Egr-1 (B-6) is available conjugated to agarose (sc-515830 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-516102 HRP), 200 µg/ml, for WB, IgG κ κ BP-HRP (Cruz Marker), sc-270177, Egr-1 shRNA Plasmid (h): sc-29303, Egr-1 shRNA Plasmid (m): sc-35267, Egr-1 shRNA Plasmid (r): sc-270177, Egr-1 shRNA (h) Lentiviral Particles: sc-29303-V, Egr-1 shRNA (m) Lentiviral Particles: sc-35267-V and Egr-1 shRNA (r) Lentiviral Particles: sc-270177-V.

Egr-1 (B-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ κ BP-HRP: sc-516102 or m-IgG κ κ BP-HRP (Cruz Marker), sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG κ κ BP-PE: sc-516830 or m-IgG κ κ BP-PE: sc-516830 (dilution range: 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


**DATA**

**APPLICATIONS**

Egr-1 (B-6) is recommended for detection of Egr-1 p82 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

**STORAGE**

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

**RESEARCH USE**

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

**REFERENCE**

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