

ER81 (R-19): sc-19526

BACKGROUND

Several members of the Ets gene family encode sequence-specific DNA binding proteins that recognize DNA sequences with a centrally located 5'-GGAA-3' element. All of the Ets proteins recognize the same central core sequence but each protein interacts with unique sequences that flank this core. PEA3 binds the motif 5'-AGGAAG-3', while ER81 (also designated ETV1) binds the motif 5'-CGGAA/T-3'. PEA3 is expressed at readily detectable levels in cells of epithelial and fibroblastic origin. Unlike other members of the Ets family, including Ets-1 and Ets-2, PEA3 is not expressed in hematopoietic cells. ER81 is highly expressed in brain, testis, lung and heart. ER81 is also moderately expressed in spleen, pancreas, colon and small intestine. During development, ER81, PEA3 and ERM display unique expression patterns which suggest these transcriptional factors play an important role in organogenesis. ERK-1 activates ER81 transcriptional activity, while MAPKAP kinase 2 inhibits ER81.

REFERENCES

1. Fisher, C.L., et al. 1991. Ligation of membrane Ig leads to calcium-mediated phosphorylation of the proto-oncogene product, Ets-1. *J. Immunol.* 146: 1743-1749.
2. Brown, T.A., et al. 1992. Specificities of protein-protein and protein-DNA interaction of GABP- α and two newly defined Ets-related proteins. *Genes Dev.* 12: 2502-2512.
3. Monte, D., et al. 1995. Molecular characterization of the Ets-related human transcription factor ER81. *Oncogene* 11: 771-779.
4. Janknecht, R. 1996. Analysis of the ERK-stimulated Ets transcription factor ER81. *Mol. Cell. Biol.* 16: 1550-1556.
5. Chotteau-Lelievre, A., et al. 1997. Differential expression patterns of the PEA3 group transcription factors through murine embryonic development. *Oncogene* 15: 937-952.
6. Janknecht, R. 2001. Cell type-specific inhibition of the Ets transcription factor ER81 by mitogen-activated protein kinase-activated protein kinase 2. *J. Biol. Chem.* 276: 41856-41861.

CHROMOSOMAL LOCATION

Genetic locus: ETV1 (human) mapping to 7p21.2; Etv1 (mouse) mapping to 12 A3.

SOURCE

ER81 (R-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ER81 of human origin.

PRODUCT

Each vial contains 200 μ g IgG 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-19526 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-19526 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ER81 (R-19) is recommended for detection of ER8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ER81 (R-19) is also recommended for detection of ER81 (ETV1) in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ER81 siRNA (h): sc-37841, ER81 siRNA (m): sc-37842, ER81 shRNA Plasmid (h): sc-37841-SH, ER81 shRNA Plasmid (m): sc-37842-SH, ER81 shRNA (h) Lentiviral Particles: sc-37841-V and ER81 shRNA (m) Lentiviral Particles: sc-37842-V.

ER81 (R-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: HeLa whole cell lysate: sc-2200 or LNCaP cell lysate: sc-2231.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.



Try **ER81 (1C8B6): sc-293155**, our highly recommended monoclonal alternative to ER81 (R-19).