SANTA CRUZ BIOTECHNOLOGY, INC.

Lex A (N-19): sc-1725

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The GAL4 protein of *Saccharomyces cerevisiae* is one of the most thoroughly characterized transcriptional activators. Since the N-terminal 147 amino acid residues of GAL4 are sufficient to mediate specific and strong binding to DNA, but are incapable of efficient transcriptional activation, this protein fragment has frequently been used to confer specific DNA binding in experiments examining transcriptional activation functions of heterologous proteins. This approach is facilitated by the finding that higher eukaryotes lack endogenous proteins that enhance transcription from the consensus GAL4-binding site. Fusions between GAL4 (amino acids 1-147) and activating domains from a variety of transcriptional regulatory proteins can activate transcription in yeast, plant, insects and mammalian cells. A unique "two-hybrid" system has been developed using GAL4 fusions in yeast to identify specific protein-protein interactions. Another "two-hybrid" system utilizes the DNA binding domain of the *E. coli* protein Lex A and the transactivity domain of the HSV protein VP16.

SOURCE

Lex A (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Lex A of *E. coli* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1725 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lex A (N-19) is recommended for detection of Lex A and Lex A fusion proteins 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)], 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).

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

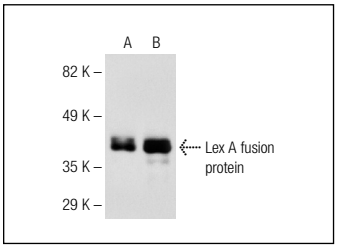
STORAGE

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.

DATA



Western blot analysis of a Lex A fusion protein using Lex A (N-19): sc-1725 (**A**) and Lex A (D-19): sc-1726 (**B**).

SELECT PRODUCT CITATIONS

1. Warner, A.J., et al. 2000. The Shc-related adaptor protein, Sck, forms a complex with the vascular-endothelial-growth-factor receptor KDR in transfected cells. Biochem. J. 347: 501-509.
2. Schmitz, N.M., et al. 2005. CDK2 catalytic activity and loss of nuclear tethering of retinoblastoma protein in childhood acute lymphoblastic leukemia. Leukemia 19: 1783-1787.
3. Schmitz, N.M., et al. 2006. Limited redundancy in phosphorylation of retinoblastoma tumor suppressor protein by cyclin-dependent kinases in acute lymphoblastic leukemia. Am. J. Pathol. 169: 1074-1079.
4. Xie, Y.B., et al. 2008. SMILE, a new orphan nuclear receptor SHP-interacting protein, regulates SHP-repressed estrogen receptor transactivation. Biochem. J. 416: 463-473.
5. Majmudar, C.Y., et al. 2009. Impact of nonnatural amino acid mutagenesis on the *in vivo* function and binding modes of a transcriptional activator. J. Am. Chem. Soc. 131: 14240-14242.
6. Yang, T.Y., et al. 2010. Posttranscriptional repression of the cel gene of the ColE7 operon by the RNA-binding protein CsrA of *Escherichia coli*. Nucleic Acids Res. 38: 3936-3951.
7. Krishnamurthy, M., et al. 2011. Caught in the act: covalent cross-linking captures activator-coactivator interactions *in vivo*. ACS Chem. Biol. 6: 1321-1326.
8. Lancia, J.K., et al. 2014. Sequence context and crosslinking mechanism affect the efficiency of in vivo capture of a protein-protein interaction. Biopolymers 101: 391-397.

MONOS Satisfaction Guaranteed

Try **Lex A (C-11): sc-390386** or **Lex A (2-12): sc-7544**, our highly recommended monoclonal alternatives to Lex A (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Lex A (C-11): sc-390386**.