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GABP- α (h): 293T Lysate: sc-177264

BACKGROUND

The transcription factor GA-binding protein (GABP) is composed of two subunits, the Ets-related GABP- α and a GABP- α -associated subunit, GABP- β . GABP- α binds to a specific DNA sequence and GABP- β exists as $\beta 1$ and $\beta 2$ splice variants that differ in their C-termini. In primary neuronal cultures, GABP- β is expressed in both the cytoplasm and the nucleus, whereas GABP- α is expressed mainly in the nucleus. GABP is constitutively expressed as either a GABP- α/β heterodimer or a GABP- α/β heterotetramer, both of which can modify GABP-dependent transcription *in vitro* and *in vivo*. The GABP- α/β tetrameric complex performs many different functions, such as stimulating transcription of the adenovirus E4 gene, differentially activating BRCA1 expression in human breast cell lines, potentiating Tat-mediated activation of long terminal repeat promoter transcription and viral replication in certain cell types, acting as a coordinator of mitochondrial and nuclear transcription for cytochrome oxidase in neurons and assisting in the regulation of RPL32 gene transcription.

REFERENCES

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5. Atlas, E., et al. 2000. GA-binding protein α/β is critical regulator of the BRCA1 promoter. *Oncogene* 19: 1933-1940.
6. Chinenov, Y., et al. 2000. The α and β subunits of the GA-binding protein form a stable heterodimer in solution. Revised model of heterotetrameric complex assembly. *J. Biol. Chem.* 275: 7749-7756.
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8. Kinoshita, K., et al. 2007. GABP- α regulates Oct-3/4 expression in mouse embryonic stem cells. *Biochem. Biophys. Res. Commun.* 353: 686-691.
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CHROMOSOMAL LOCATION

Genetic locus: GABPA (human) mapping to 21q21.3.

PRODUCT

GABP- α (h): 293T Lysate represents a lysate of human GABP- α transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

GABP- α (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GABP- α antibodies.

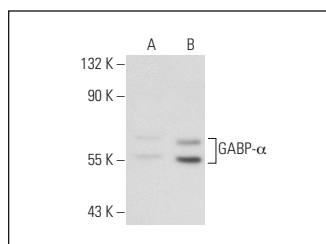
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GABP- α (H-2): sc-28311 is recommended as a positive control antibody for Western Blot analysis of enhanced human GABP- α expression in GABP- α transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

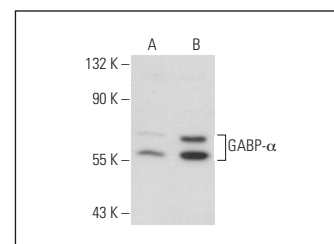
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



GABP- α (H-2): sc-28311. Western blot analysis of GABP- α expression in non-transfected: sc-117752 (A) and human GABP- α transfected: sc-177264 (B) 293T whole cell lysates.



GABP- α (G-1): sc-28312. Western blot analysis of GABP- α expression in non-transfected: sc-117752 (A) and human GABP- α transfected: sc-177264 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.