

GILZ (h2): 293T Lysate: sc-111443

BACKGROUND

Glucocorticoid-induced leucine zipper (GILZ) is a leucine zipper protein expressed in normal lymphocytes from thymus, spleen and lymph nodes. It is absent in nonlymphoid tissues including brain, liver and kidney. GILZ mediates the immunosuppressive effects of glucocorticoid hormones; its expression is induced in T cells by dexamethasone. GILZ protects T cells from an anti-CD3 antibody-induced apoptosis by inhibiting Fas and Fas ligand expression. It interferes with Egr-2, Egr-3, NFAT/AP-1-inducible transcription factors and AP-1. The interaction of GILZ with c-Fos and c-Jun inhibits the binding of active AP-1 to its DNA consensus site *in vitro*. GILZ also binds NFκB subunits and inhibits the NFκB nuclear translocation. It inhibits T cell receptor-induced interleukin-2/interleukin-2 receptor expression. The binding of GILZ to Raf-1 prevents Raf-MEK-ERK activation in the MAPK pathway. GILZ is expressed by normal macrophages in nonlymphoid tissues and by tumor-infiltrating macrophages in Burkitt lymphomas. The gene encoding human GILZ maps to chromosome Xq22.3.

REFERENCES

1. D'Adamio, F., et al. 1997. A new dexamethasone-induced gene of the leucine zipper family protects T lymphocytes from TCR/CD3-activated cell death. *Immunity* 7: 803-812.
2. Mittelstadt, P.R. and Ashwell, J.D. 2001. Inhibition of AP-1 by the glucocorticoid-inducible protein GILZ. *J. Biol. Chem.* 276: 29603-29610.
3. Ayroldi, E., et al. 2001. Modulation of T cell activation by the glucocorticoid-induced leucine zipper factor via inhibition of nuclear factor κ B. *Blood* 98: 743-753.
4. Cannarile, L., et al. 2001. Cloning, chromosomal assignment and tissue distribution of human GILZ, a glucocorticoid hormone-induced gene. *Cell Death Differ.* 8: 201-203.
5. Ayroldi, E., et al. 2002. Glucocorticoid-induced leucine zipper inhibits the Raf-extracellular signal-regulated kinase pathway by binding to Raf-1. *Mol. Cell. Biol.* 22: 7929-7941.
6. Berrebi, D., et al. 2003. Synthesis of glucocorticoid-induced leucine zipper (GILZ) by macrophages: an anti-inflammatory and immunosuppressive mechanism shared by glucocorticoids and IL-10. *Blood* 101: 729-738.

CHROMOSOMAL LOCATION

Genetic locus: TSC22D3 (human) mapping to Xq22.3.

PRODUCT

GILZ (h2): 293T Lysate represents a lysate of human GILZ transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

GILZ (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive GILZ antibodies. Recommended use: 10-20 µl per lane.

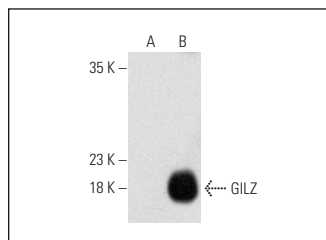
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GILZ (B-2): sc-515835 is recommended as a positive control antibody for Western Blot analysis of enhanced human GILZ expression in GILZ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

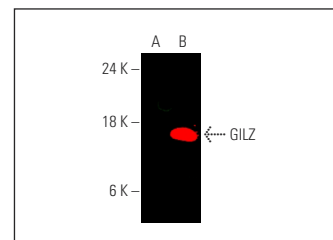
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



GILZ (B-2): sc-515835. Western blot analysis of GILZ expression in non-transfected: sc-117752 (A) and human GILZ transfected: sc-111443 (B) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



GILZ (G-5): sc-133215. Near-infrared western blot analysis of GILZ expression in non-transfected: sc-117752 (A) and human GILZ transfected: sc-111443 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

PROTOCOLS

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