

GILZ (m): 293T Lysate: sc-120485

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 NF κ B subunits and inhibits the NF κ B 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., Zollo, O., Moraca, R., Ayroldi, E., Bruscoli, S., Bartoli, A., Cannarile, L., Migliorati, G. and Riccardi, C. 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., Migliorati, G., Bruscoli, S., Marchetti, C., Zollo, O., Cannarile, L., D'Adamio, F. and Riccardi, C. 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., Zollo, O., D'Adamio, F., Ayroldi, E., Marchetti, C., Tabilio, A., Bruscoli, S. and Riccardi, C. 2001. Cloning, chromosomal assignment and tissue distribution of human GILZ, a glucocorticoid hormone-induced gene. *Cell Death Differ.* 8: 201-203.
5. Ayroldi, E., Zollo, O., Macchiarulo, A., Di Marco, B., Marchetti, C. and Riccardi, C. 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., Bruscoli, S., Cohen, N., Foussat, A., Migliorati, G., Bouchet-Delbos, L., Maillot, M.C., Portier, A., Couderc, J., Galanaud, P., Peuchmaur, M., Riccardi, C. and Emilie, D. 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 (mouse) mapping to X F1.

PRODUCT

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

APPLICATIONS

GILZ (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GILZ antibodies. Recommended use: 10-20 μ l per lane.

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

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.