BACKGROUND
Tumor necrosis factor β (TNFβ), also known as lymphotoxin, is a pleiotropic cytokine that has a molecular weight of 25 kDa (1-3). TNFα, also known as cachectin, is a smaller cytokine with a molecular weight of 17 kDa that binds to the same receptors producing a vast array of effects similar to those of TNFβ (1-4). TNFβ and TNFα share 30 percent amino acid homology and have similar biological activities (1). TNFβ is produced by activated lymphocytes, including CD4+ T helper cell type 1 lymphocytes, CD8+ lymphocytes and certain B lymphoblastoid cell lines (4). TNFα is produced by several different cell types, which include lymphocytes, neutrophils and macrophages (3). TNFα and TNFβ can modulate many immune and inflammatory functions, while having the ability to inhibit tumor growth (4,5). Target tumor cells must express TNF receptors 1 (55 kDa) and 2 (75 kDa) to be killed, with the p55 receptor mediating the cytotoxic response (4,6,7).

SOURCE
TNFα (1E8-G6) is an affinity-purified mouse monoclonal IgG1 antibody corresponding to an amino acid sequence mapping at the amino terminus of tumor necrosis factor alpha (TNFα) of human origin.

PRODUCT
Each vial contains 200 µg IgG1 in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

SPECIFICITY
TNFα (1E8-G6) is recommended for the detection of TNFα of human origin by immunohistochemistry (including paraffin-embedded sections); non-cross-reactive with TNFβ.

Molecular Weight of TNFα: 19 kDa.

STORAGE
Store at 4° C, do not freeze; stable for one year from the date of shipment.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

BACKGROUND REFERENCES

For product citations, please visit our website at www.scbt.com