



Product Datasheet

Product Name	STAT3 Human Recombinant
Cata No	CB500872
Source	Escherichia Coli.
Synonyms	Signal transducer and activator of transcription 3, Acute-phase response factor, STAT3, APRF, FLJ20882, MGC16063.

Description

STAT3 is tyrosine-phosphorylated and activated by a number of kinases. The binding of IL-6family cytokines(including IL-6, oncostatin Mand leukemia inhibitory factor) to the gp130receptor triggers STAT3 phosphorylation by JAK2. EGF-Rand certain other receptor tyrosine kinases, such as c-METphosphorylate STAT3 in response to their ligands. STAT3 is also a target of the c-srcnon-receptor tyrosine kinase. STAT3-deficient mouse embryoscan not develop beyond embryonic day 7 (E7.0), when gastrulation initiates. It appears that at these early stages of development, STAT3 activation is required for self-renewal of embryonic stem cells(ESCs). Indeed, LIF, which is supplied to ESC cultures to maintain their undifferentiatedstate, can be omitted if STAT3 is activated through some other means. Constitutive STAT3 activation is associated with various human cancers and commonly suggests poor prognosis. It has anti-apoptotic as well as proliferative effects.

STAT3 Human Recombinant encoding 50-240aa expressed in *E.coli*

The Stat3 protein is transcription factor expressed in most cell types and is activated by multiple cytokines and growth factors including: IFN-a, IL-10, IL-6, IL-11, IL-12, IL-2, EGF etc. Stat3 binds to DNA as either a homodimer or as a heterodimer with Stat1. Stat3 interacts with the APRE (acute phase response element) & SIE (c-sis inducible element).

Physical Appearance

Sterile Filtered clear solution.

Formulation

STAT3 at 50µg/ml in 50mM Tris-Acetate, pH7.5, 1mM EDTA, 20% Glycerol without BSA and Sodium Azide.

Stability

1 week at 14°C. For longer periods of time store vial at -20°C to -80°C.

When stored at the recommended temperature, this protein is stable for 12 months.

Avoid multiple freeze-thaw cycles.