

ELISAONE™ STAT3 Assays

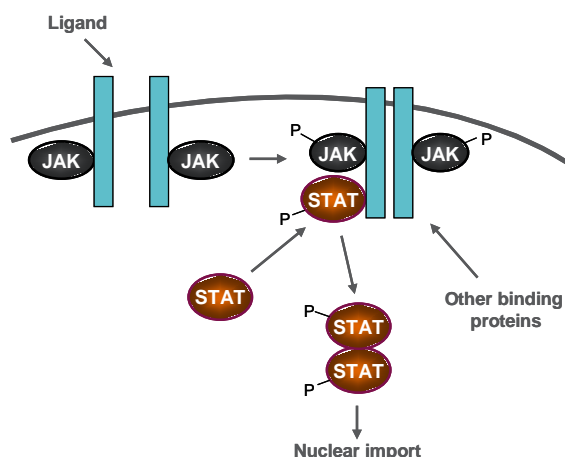
ELISAONE™ assay kits for analysis of cellular STAT3 (p-Tyr705) phosphorylation and Total STAT3

ELISAONE™ Overview

ELISAONE assay kits are for the detection of cellular proteins. A whole new way of performing cellular assays, ELISAONE takes the hard work out of running a standard ELISA, while still giving the high quality results expected from a sandwich immunoassay. Fully self-contained kits are supplied in a convenient 96-well format. Simple to use and highly sensitive, ELISAONE kits are designed to get results, fast.

ELISAONE™ phospho-STAT3 and Total STAT3 assays

STAT3 phosphorylation was first described as an IL-6-mediated response, but has since been found to be induced by many stimuli. STAT3 exists as 2 splice variants (STAT3 α and STAT3 β), the expression of which appear cell type and cell maturation-dependent. STAT3 is phosphorylated at Tyr705 by activated JAK proteins, or by various receptor tyrosine kinases, which induces dimerization and translocation to the nucleus. STAT3 α (but not STAT3 β) is also phosphorylated at Ser727 in a MAPK and mTOR-dependent mechanism, which enhances transcriptional activity.



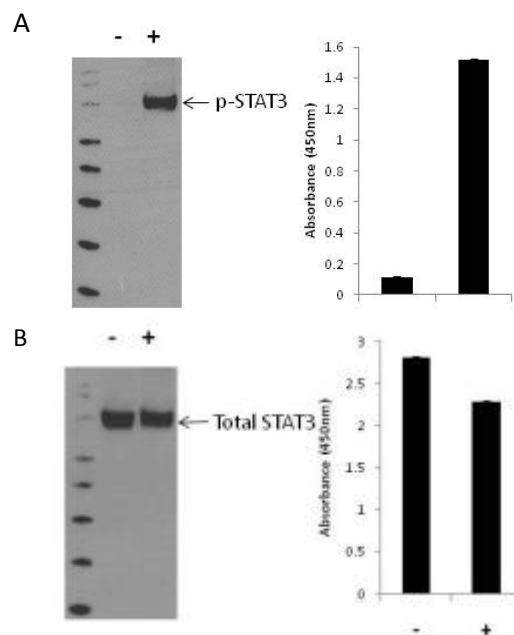
STAT3 has been linked to several processes important for tumour progression, and has been found to be constitutively active in certain tumour cells. Pro-oncogenic activities attributed to STAT3 include the upregulation of transcription of angiogenic proteins, and immune suppressive proteins.

ELISAONE™ STAT3 assay technical specifications

Specificity:

TGR's ELISAONE STAT3 assay kits detect endogenous levels of the 2 splice variants, STAT3 α and STAT3 β (Genbank Accessions NP_644805 and NP_998827) in cellular lysates. Phospho- STAT3 assay kits detect STAT3 only when phosphorylated at Tyr705. Total STAT3 assay kits detect STAT3 irrespective of phosphorylation status.

As shown below, using the STAT3 assay kits or Western blot, a significant stimulation of STAT3 phosphorylation at Tyr705 (A) is detected in A431 cells treated with EGF (+) for 10 minutes compared with cells treated with AG1478 (-). No similar changes in total STAT3 levels (B) were observed.



Species cross-reactivity:

Tested: Human; Expected: Mouse, Rat

Other species should be tested on a case-by-case basis.

QC: Phospho-STAT3 and Total STAT3 assays are routinely tested against A431 cellular lysates. See certificate of analysis for Lot-specific information. Available at www.tgrbio.com.

Ordering Information

ELISAONE Assay Kits are available now from:

CEDARLANE (www.cedarlanelabs.com)

US: 1-800-721-1644

CANADA: 1-800-268-5058

AXXORA (www.axxora.com)

US: 1-858-550-8830

Email: axxora-usa@axxora.com

Product	Pack Size	Catalog
Phospho-STAT3 (Y705)	96 assays	EOK005
Total STAT3	96 assays	EOK015

Complementary Products

ELISAONE™ assay kits are available for the following targets:

MAPK Signaling:

ERK 1/2, p38 MAPK, JNK/SAPK

AKT Signaling:

AKT 1/2/3, p70S6K

STAT Signaling:

STAT3, STAT5

NF-κB Signaling:

NF-κB p65, I-κBα

p53 Signaling:

p53

Protein normalization:

GAPDH

Also available separately:

Product	Pack Size	Catalog
ELISAONE™ 96-well strip-well microplates	1 plate	EPL001
	5 plates	EPL002
5X Lysis Buffer	100mL	EBF001
Enhancer Solution	100mL	EBF002
10X Wash Buffer	500mL	EBF003

Check our website (www.tgrbio.com) for the latest information on target availability.