#### TECHNICAL DATASHEET ELISA – STAT5

## ELISAONE™ STAT5 Assays

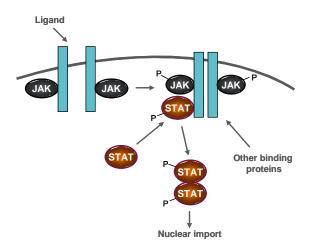
ELISAONE™ assay for analysis of cellular STAT5A/B (p-Tyr694/699) phosphorylation and Total STAT5A/B

#### **ELISA***ONE™* 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-STAT5 assay

STAT5A and STAT5B (collectively known as STAT5) are two very closely related proteins. Although encoded by different genes, STAT5A and STAT5B share 96% identity at the protein level. Similarly to other STAT proteins, STAT5A and STAT5B are activated by tyrosine phosphorylation, usually by JAK proteins, at Tyr694 and Tyr699, respectively.



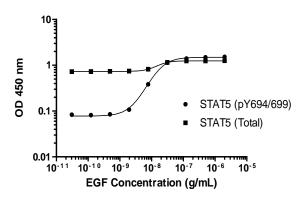
STAT5A and STAT5B show differential, cell-specific regulation, with STAT5A expression predominant in mammary tissue, while STAT5B expression is more abundant in muscle and liver tissues. STAT5 plays an integral role in immune cell development and regulation, and is an important mediator of IL-2 and IL-15 signaling in regulatory T cells.

# ELISAONE™ phospho-STAT5 assay technical specifications

#### Specificity:

TGR's ELISAONE phospho-STAT5 assay kits detect endogenous levels of STAT5A and STAT5B (GenBank Accessions NP\_003143 and NP\_036580) in cellular lysates. Phospho-STAT5 assay kits detect STAT5A/B only when phosphorylated at Tyr694/699. Total STAT5 assay kits measure STAT5A/B independent of phosphorylation status.

As shown below, using the phospho-STAT5 assay kit, a significant stimulation of STAT5 phosphorylation at Tyr694/699 is detected in A431 cells treated with a dose range of EGF for 10 minutes. Little change was detected in levels of total STAT5 in the same experiment.



Species cross-reactivity:

Tested: Human

Expected: Mouse, Rat

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

#### QC:

Phospho-STAT5 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-STAT5 (Y694/699)	96 assays	EOK006
Total STAT5	96 assays	EOK056

## **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
ELISA <i>one</i> ™ 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 (<u>www.tgrbio.com</u>) for the latest information on target availability.