

## ELISAONE™ GSK3 $\beta$ Assays

ELISAONE™ assay kits for analysis of cellular GSK3 $\beta$  (p-Ser9) phosphorylation and Total GSK3 $\beta$

### 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-GSK3 $\beta$ and Total GSK3 $\beta$ assays

Glycogen synthase kinase-3 (GSK3) was initially identified for its ability to regulate glycogen synthesis in response to insulin, through its capacity to phosphorylate and inactivate glycogen synthase. Expressed as two closely related isoforms - GSK3 $\alpha$  and GSK3 $\beta$ , these kinases are now known to be involved in a more diverse array of signalling pathways.

GSK3 $\beta$  is an important element of the PI3 kinase/AKT signalling pathway, where AKT-mediated phosphorylation at Ser9 negatively regulates GSK3 $\beta$  kinase activity. GSK3 is also a component of the Wnt signalling pathway, required for developmental processes.

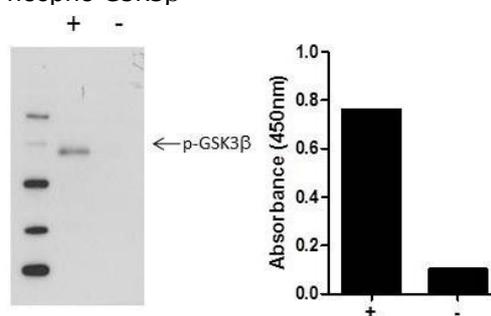
### ELISAONE™ GSK3 $\beta$ (p-Ser9) assay technical specifications

#### Specificity:

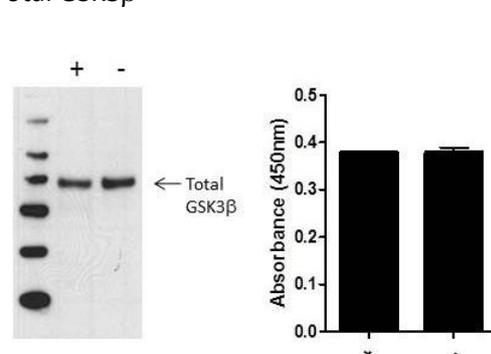
TGR's ELISAONE GSK3 $\beta$  (p-Ser9) assay kits detect endogenous levels of GSK3 $\beta$  (GenBank Accession NP\_001139628) in cellular lysates. Phospho-GSK3 $\beta$  assay kits only detect GSK3 $\beta$  when phosphorylated at Ser9. Total GSK3 $\beta$  assay kits detect GSK3 $\beta$  irrespective of phosphorylation status.

As shown, using the GSK3 $\beta$  assay kits or Western blot, GSK3 $\beta$  phosphorylation at Ser9 is detected in insulin-treated MCF7 cells (+), compared with MCF7 cells treated with PI3-kinase pathway inhibitors (-), whereas no change in total GSK3 $\beta$  levels is observed.

#### Phospho GSK3 $\beta$



#### Total GSK3 $\beta$



#### Species cross-reactivity:

Tested: Human, Mouse

Expected: Rat

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

#### QC:

Phospho-GSK3 $\beta$  and total GSK3 $\beta$  assays are routinely tested against MCF7 cell lysates. See certificate of analysis for Lot-specific information. Available at [www.tgrbio.com](http://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-GSK3 $\beta$ (S9)	96 assays	EOK026
Total GSK3 $\beta$	96 assays	EOK036

## Complementary Products

ELISAONE™ assay kits are available for the following targets:

### *MAPK Signaling:*

ERK 1/2, p38 MAPK, JNK/SAPK, c-JUN

### *AKT Signaling:*

AKT 1/2/3 (p-Thr308), AKT 1/2/3 (p-Ser473), p70S6K, ribosomal protein S6, GSK3 $\beta$ , BAD

### *STAT Signaling:*

STAT1\*, STAT3, STAT5

### *NF- $\kappa$ B Signaling:*

NF- $\kappa$ B p65, I- $\kappa$ B $\alpha$ , IKK $\alpha$

### *p53 Signaling:*

p53

### *Wnt Signaling:*

$\beta$ -Catenin, GSK3 $\beta$

### *TGF $\beta$ Signaling:*

SMAD1\*, SMAD3\*

### *Protein normalization:*

GAPDH

*\*coming soon*

*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](http://www.tgrbio.com)) for the latest information on target availability.