## TECHNICAL DATASHEET ELISA – β-CATENIN

# ELISA*ONE™* β-Catenin Assays

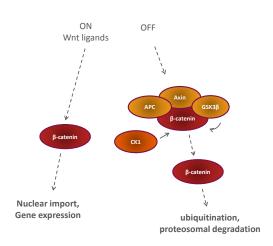
ELISA $ONE^{TM}$  assay kits for analysis of cellular  $\beta$ -Catenin (p-Ser45) phosphorylation and Total  $\beta$ -Catenin

### **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.

# ELISA $ONE^{TM}$ phospho-β-catenin and Total β-catenin assays

 $\beta$ -catenin is part of a complex of proteins that constitute adherens junctions, and play an important role mediating cellular adhesion.  $\beta$ -catenin is also a key downstream effector in the Wnt signaling pathway.



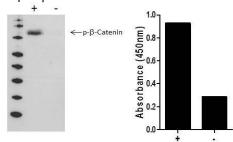
CK1 phosphorylates  $\beta$ -catenin on Ser45, which primes  $\beta$ -catenin for subsequent phosphorylation by GSK3 $\beta$  at Ser33, Ser37 and Thr41. Phosphorylation by GSK3 $\beta$  destabilizes  $\beta$ -catenin and targets it for ubiquitination and subsequent proteolytic degradation.  $\beta$ -catenin has also been found in complexes with the tumor suppressor protein APC. Mutations in APC are a cause of several cancer types, including colorectal cancer, pilomatrixoma, medulloblastoma and ovarian cancer.

# ELISA*ONE™* β-catenin (p-Ser45) assay and Total β-catenin assay technical specifications

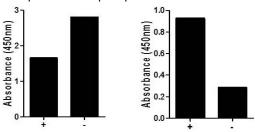
Specificity:

TGR's ELISA*one*  $\beta$ -catenin (p-Ser45) assay kits detect endogenous levels of  $\beta$ -catenin (GenBank Accession NP\_001895.1) in cellular lysates. Phospho- $\beta$ -catenin assay kits only detect  $\beta$ -catenin when phosphorylated at Ser45. Total  $\beta$ -Catenin assay kits detect  $\beta$ -catenin irrespective of phosphorylation status. As shown, using the  $\beta$ -catenin assay kits or Western blot,  $\beta$ -catenin phosphorylation at Ser45 is detected in PMA/calyculin-treated A549 cells (+), compared with untreated A549 cells (-), consistent with Western blot results.

Phospho β-Catenin:



Total  $\beta$ -Catenin vs phospho:



Species cross-reactivity:

Tested: Human, Mouse

Expected: Rat

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

basis.

QC:Phospho-β-catenin and total β-catenin assays are routinely tested against PMA-treated A549 cellular lysates. See certificate of analysis for Lot-specific information. Available at <a href="https://www.tgrbio.com">www.tgrbio.com</a>.



www.tgrbio.com Page 1
6 November 2017

#### **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-β-Catenin (S45)	96 assays	EOK023
Total β-Catenin	96 assays	EOK033

## **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-κB Signaling:

NF-κB p65, I-κB $\alpha$ , IKK $\alpha$ 

p53 Signaling:

p53

Wnt Signaling:

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

TGFβ Signaling:

SMAD1, SMAD3

Protein normalization:

GAPDH

#### Also available separately:

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

Check our website ( $\underline{www.tgrbio.com}$ ) for the latest information on target availability.

