BD Cytometric Bead Array
Cell Signaling Flex Set System

Features

- Identifies and quantitates multiple proteins in cell lysates

- Achieves accurate, reproducible results within hours

- Internal controls ensure that BD CBA assays are fully optimized

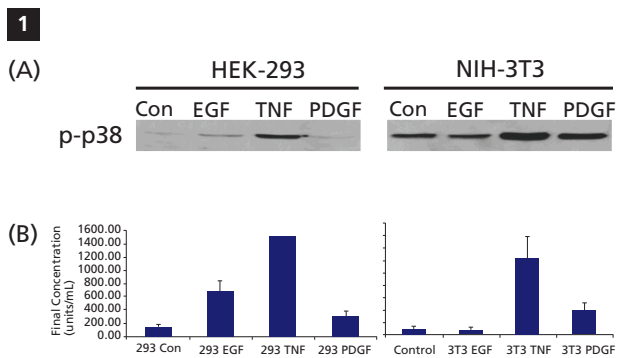- Flexible formulation and cost effective

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Figure 1. Analysis of phospho-p38 protein levels in HEK 293 and NIH 3T3 cells in response to EGF, TNF, and PDGF stimulation. Panel (A) shows the results of WB analysis. Panel (B) shows the results of BD Cytometric Bead Array Cell Signaling Flex Set analysis.
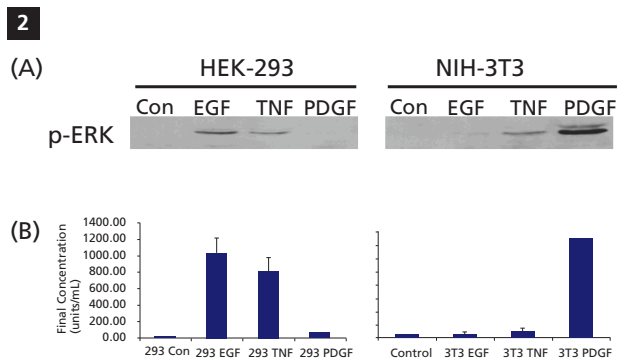
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Figure 2. Analysis of phospho-ERK1/2 protein levels in HEK 293 and NIH 3T3 cells in response to EGF, TNF, and PDGF stimulation. Panel (A) shows the results of WB analysis. Panel (B) shows the results of BD Cytometric Bead Array Cell Signaling Flex Set analysis. Data courtesy of Dr. Tony Pawson and Dr. Jay Park, Mount Sinai Hospital, Toronto, Canada.

The BD™ Cytometric Bead Array (CBA) Cell Signaling Flex Set system lets you achieve high productivity in cell signaling studies by extracting more data from less sample faster than traditional Western blot techniques.

The flexible system is easy to use and economical. Choose only the assays you need—a simple protocol and universal buffer kit keep results optimal.

BD Cytometric Bead Array Solutions
With the BD CBA Cell Signaling Flex Set system, BD Biosciences extends the benefits of BD CBA assays to researchers investigating cell signaling pathways. The assays cover key signaling molecules involved in B cell and T cell receptor signaling, as well as other pathways in the immune response, and stem cell signaling.

BD CBA combined with flow cytometry creates a powerful multiple analyte (multiplex) assay system. The BD CBA system uses the broad dynamic range of fluorescence detection offered by flow cytometry and antibody-coated beads to efficiently capture analytes. Each bead has a unique fluorescence intensity so that beads can be mixed and run simultaneously in a single tube, significantly reducing sample requirements and time to results in comparison with Western blot (WB) techniques.

Faster, more reliable analysis of cell lysates using a multiplexed system
Like other BD CBA solutions, BD CBA Cell Signaling Flex Sets are a bead-based immunoassay system designed for multiplex analysis. Multiplexing is especially important when a cell culture yields only a small amount of lysate, making the sample the limiting factor in the number of proteins that can be analyzed.

With BD CBA Cell Signaling Flex Sets, researchers can analyze multiple proteins with just 25 to 50 µL of sample. By comparison, WB analysis requires a similar amount of lysate per lane; however, only one protein can be analyzed.

Easy-to-interpret, quantitative results
BD CBA Cell Signaling Flex Sets use a standard curve and intuitive analysis software to generate a numerical readout in relative units/mL for each protein assayed, delivering the answers needed without additional steps. Low inter- and intra-assay CVs allow greater confidence in results.

Visit **bdbiosciences.com/cba** for more information.

BD Cytometric Bead Array Cell Signaling Flex Set System

Open, configurable, and optimized solution

The BD CBA Flex Set system provides an open and configurable menu of bead-based assays designed to be the easiest method of creating multiplex assays. Lyophilized standards and an advanced direct PE detection system ensure that assays are fully optimized—eliminating the need to optimize the assay conditions. Assays are verified for use together and tested on a full range of BD FACS™ instruments (including the BD FACSArray™ bioanalyzer, BD FACSCanto™ II flow cytometer, BD™ LSR II system, BD FACSAria™ cell sorter, and BD FACSCalibur™ flow cytometer). This design translates to more consistent and superior assay performance in complex biological samples, in less time.

References

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3. Jury EC, Isenberg DA, Mauri C, Ehrenstein MR. Atorvastatin restores Lck expression and lipid raft-associated signaling in T cells from patients with systemic lupus erythematosus. *J Immunol*. 2006;177:7416-7422.

4. Ortaldo JR, Winkler-Pickett R, Wigginton J, Horner M, Bere EW, Mason AT, et al. Regulation of ITAM positive receptors: Role of IL-12 and IL-18. *Blood*. 2006;107(4):1468-1475.

5. Vanaudenaerde BM, Wuyts WA, Geudens N, Dupont LJ, Schoofs K, Smeets S, et al. Macrolides inhibit IL17-induced IL8 and 8-iso-prostane release from human airway smooth muscle cells. *Am J Transplant*. 2007;7:76-82.

Ordering Information

Description	Reactivity	Cat.No.
Human GAPDH Flex Set (Bead A9)	Hu	560792
Phospho Akt1 (S473) Flex Set (Bead A4)	Hu	560144
Phospho Akt1 (T308) Flex Set (Bead A4)	Hu	560208
Phospho Akt2 (S474) Flex Set (Bead A5)	Hu	560147
Phospho Akt2 (T309) Flex Set (Bead A5)	Hu	560146
Phospho BLNK (Y84) Flex Set (Bead C9)	Hu	560063
Phospho Btk (Y551) Flex Set (Bead D5)	Hu	560004
Phospho c-Jun (S63) Flex Set (Bead D8)	Hu	560059
Phospho eNos (S1177) Flex Set (Bead C7)	Hu	560021
Phospho eNos (T495) Flex Set (Bead C7)	Hu	560065
Phospho ERK1/2 (T202/Y204) Flex Set (Bead C4)	Hu, Ms, Rat	560012
Phospho Itk (Y511) Flex Set (Bead C6)	Hu, Ms	560008
Phospho JNK1/2 (T183/Y185) Flex Set (Bead B5)	Hu, Ms, Rat	560013
Phospho MEK1/2 (S222) Flex Set (Bead A6)	Hu	560150
Phospho p38 (T180/Y182) Flex Set (Bead B6)	Hu, Ms, Rat	560010
Phospho PLC-γ (Y783) Flex Set (Bead B7)	Hu, Ms, Rat	560009
Phospho Pyk2 (Y402) Flex Set (Bead D9)	Hu	560148
Phospho Rsk (T573) Flex Set (Bead D7)	Hu, Ms, Rat	560024
Phospho SLP-76 (Y145) Flex Set (Bead D6)	Hu	560067

Description	Reactivity	Cat.No.
Phospho Stat1 (Y701) Flex Set (Bead C5)	Hu	560015
Phospho Stat3 (Y705) Flex Set (Bead C8)	Hu	560093
Phospho Syk (Y352) Flex Set (Bead B9)	Hu, Ms, Rat	560014
Phospho ZAP-70 (Y319) Flex Set (Bead B8)	Hu, Ms	560011
Total Akt1 Flex Set (Bead A4)	Hu	560206
Total Akt2 Flex Set (Bead A5)	Hu	560207
Total JNK Flex Set (Bead B5)	Hu	560214
Total Nanog Flex Set (Bead A8)	Hu	560854
Total Oct-4 Flex Set (Bead A6)	Hu	560855
Total p38-α Flex Set (Bead B6)	Hu	560145
Total Rex-1 Flex Set (Bead C4)	Hu	560862
Total Sox2 Flex Set (Bead A8)	Hu	561450
Total Stat1 Flex Set (Bead C5)	Hu, Ms, Rat	560017
Total Syk Flex Set (Bead B9)	Hu	560020
Total ZAP-70 Flex Set (Bead B8)	Hu, Ms, Rat	560019
Cell Signaling Master Buffer Kit (100 tests)		560005
Cell Signaling Master Buffer Kit (500 tests)		560006
FCAP Array™ Software v1.0.1 (PC, Windows)		641488
FCAP Array Software v1.0.2 (Mac OS)		645447

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