

Technical Data Sheet

PE Mouse Anti-CREB (pS133) / ATF-1 (pS63)

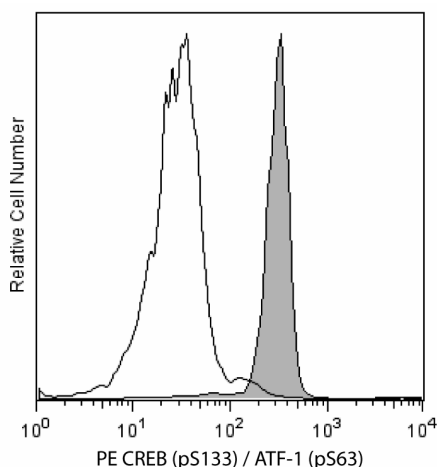
Product Information

Material Number:	558436
Size:	50 tests
Vol. per Test:	20 µl
Clone:	J151-21
Immunogen:	Phosphorylated Human CREB Peptide
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Predicted: Mouse, Rat
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Transcription of various genes is regulated by the cyclic AMP (cAMP) signal transduction pathway through a family of cAMP Responsive Element (CRE)-Binding transcription factors that include CREB, CREM (*CRE Modulator*), and ATF-1 (*Activating Transcription Factor 1*). The genes for these transcription factors encode multiple isoforms that are created by alternative splicing, alternative initiation codons, and alternative intronic promoters. Homo- and heterodimers of these members of the basic domain-and-leucine zipper superfamily of proteins bind the palindromic TGACGTCA sequence of CRE. CREB is expressed in all somatic cells, and many different stimuli activate CREB by phosphorylation of its serine 133 (S133). The transcriptional activity and specificity of CREB are regulated by the signaling pathways initiated by the various stimuli. Transcriptional regulation by CREB family members has been implicated in many physiological responses to extracellular and environmental stimuli, such as memory, tissue growth and development, and homeostasis.

The J151-21 monoclonal antibody recognizes the phosphorylated S133 of human CREB in addition to cross-reacting with S63 of human ATF-1.



Analysis of CREB (pS133) / ATF-1 (pS63) in human peripheral blood lymphocytes. Human whole blood was either stimulated with PMA and Ionomycin for 15 minutes at 37°C (shaded histogram) or unstimulated (open histogram). The cells were lysed and fixed with 1X BD Phosflow™ Lyse/Fix Buffer (Cat. No. 558049) for 10-15 minutes at 37°C, then permeabilized (BD Phosflow™ Perm Buffer II, Cat. No. 558052) on ice for 30 minutes, and then stained with the PE mouse anti-CREB (pS133) / ATF-1 (pS63) antibody. For data analysis, lymphocytes were selected by scatter profile. Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
---	------------------

Suggested Companion Products

Catalog Number	Name	Size	Clone
558049	Lyse/Fix Buffer 5X	250 ml	(none)
558052	Perm Buffer II	125 ml	(none)
557885	Perm/Wash Buffer I	125 ml	(none)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD



558050	Perm Buffer III	125 ml	(none)
554655	Fixation Buffer	100 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

Shaywitz AJ, Greenberg ME. CREB: a stimulus-induced transcription factor activated by a diverse array of extracellular signals. *Annu Rev Biochem.* 1999; 68:821-861. (Biology)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be constructed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

