

Store at  
-20°C  
#93521

# Cannabinoid Receptor 1 Downstream Signaling Antibody Sampler Kit



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1 Kit (9 x 20 microliters)

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
CB1 Receptor (D5N5C) Rabbit mAb	93815	20 µl	60 kDa	Rabbit IgG
Phospho-CREB (Ser133) (87G3) Rabbit mAb	9198	20 µl	43 kDa	Rabbit IgG
CREB (48H2) Rabbit mAb	9197	20 µl	43 kDa	Rabbit IgG
Phospho-Akt (Ser473) (D9E) XP® Rabbit mAb	4060	20 µl	60 kDa	Rabbit IgG
Akt (pan) (C67E7) Rabbit mAb	4691	20 µl	60 kDa	Rabbit IgG
Phospho-mTOR (Ser2448) (D9C2) XP® Rabbit mAb	5536	20 µl	289 kDa	Rabbit IgG
mTOR (7C10) Rabbit mAb	2983	20 µl	289 kDa	Rabbit IgG
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb	4370	20 µl	44, 42 kDa	Rabbit IgG
Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb	4668	20 µl	46, 54 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

## Description

The Cannabinoid Receptor 1 Downstream Signaling Antibody Sampler Kit provides an economical means of detecting the activation of downstream cannabinoid receptor signaling pathways using phospho-specific and control antibodies. The kit includes enough antibodies to perform two western blot experiments with each primary antibody.

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibodies.*

## Background

Cannabinoid receptors mediate a number of physiological processes in the brain ranging from appetite regulation, pain, learning, and memory (1). The major cannabinoid receptors in the brain include CB1 and CB2 receptors, which are G-protein coupled receptors (GPCRs). CB1 interacts with other GPCRs including metabotropic glutamate receptor 1, mGluR1 (2). Endogenous ligands, endocannabinoids, but also exogenously introduced compounds such as tetrahydrocannabinol (THC), activate cannabinoid receptors by promoting the exchange of GDP for GTP, leading to a cascade of signaling pathways that are activated to drive various functions. Some of these functions include neurite outgrowth, inflammation, and transcriptional control (3). Components of this kit are readouts for several downstream signaling components of CB1 receptor and they can also be used as a readout for CB1 activation and function. Cannabinoid receptor function is not limited to brain function but may modulate peripheral functions, including immune responses (4,5).

## Background References

1. Smith, T.H. et al. (2010) *Br J Pharmacol* 160, 454-66.
2. Batista, E.M. et al. (2016) *Mol Brain* 9, 80.
3. Lu, D. et al. (2019) *Acta Pharmacol Sin* 40, 324-35.
4. Ruiz de Azua, I. et al. (2017) *J Clin Invest* 127, 4148-62.
5. Mehrpouya-Bahrami, P. et al. (2017) *Sci Rep* 7, 15645.

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