

Anti-pCREB [Ser133]-165Ho

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3165034D

Package size and concentration: 25 μg, 0.5 mg/mL

Storage: Store at 4 °C. Do not freeze.

Reactivity: Rat, Mouse, Human

Clone: 87G3

Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC-Paraffin

Technical Information

Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC $^{\text{IM}}$) using the Fluidigm Hyperion $^{\text{IM}}$ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

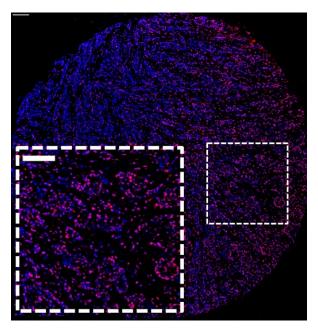
tissue sections.

Quality control: Each lot of conjugated antibody is quality controltested by Imaging Mass Cytometry on tissue sections.

Recommended concentration: For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range: IMC-Paraffin: 1:25 to 1:100

Description

CREB is a 43 kDa leucine zipper transcription factor that belongs to the CREB/ATF family. CREB regulates proliferation, differentiation and survival in diverse cell types, including cells of neuronal and hematopoietic origin. The serine 133 residue within the kinase-inducible domain (KID) is phosphorylated by various kinases. This phosphorylation promotes the interaction of CREB with various transcriptional co-activators, in particular the histone acetyltransferases CREB-binding protein (CBP) and p300. Phosphorylation of CREB occurs in response to stimuli including growth factors, neurotransmitters and stress signals that increase intracellular cAMP or calcium levels. When activated, CREB binds to cAMP response elements, thereby initiating transcription of CREB target genes. The 87G3 antibody reacts with CREB phosphorylated at the serine 133 residue.



Human breast carcinoma (FFPE) stained with 165Ho-anti-phospho-CREB [Ser133] (87G3) at a dilution of 1:50 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = $100 \ \mu m$.

References

Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for imaging mass cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." Nature Methods 11 (2014): 417-22.

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