

C2C2 monoclonal antibody

Cat. No. C15200249

Type: Monoclonal	Specificity: Leptotrichia shahii
Size: 50 µg/50 µl	Isotype: IgG1
Concentration: 1 µg/µl	Host: Mouse
Lot No.: 001	Purity: Protein G purified monoclonal antibody
Storage buffer: PBS containing 0.05 % Na-azide	Storage conditions: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles
Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.	

Last Data Sheet Update: December 13, 2019

Description

Other name : Cas13a

Monoclonal antibody raised in mouse against the C2C2 protein from Leptotrichia shahii (CRISPR associated protein 13a) using a recombinant protein.

Applications

Applications	Suggested dilution/amount	References
Western blotting	1:1,000	Fig 1

Target Description

CRISPR systems are adaptable immune mechanisms which are present in many bacteria to protect themselves from foreign nucleic acids, such as viruses, transposable elements or plasmids. The CRISPR/Cas9 (CRISPR-associated protein 9nuclease) system from *S. pyogenes* was the first to be adapted for inducing sequence-specific double stranded breaks and targeted genome editing. This system is unique and flexible due to its dependence on RNA as the moiety that targets the nuclease to a desired DNA sequence and can be used to induce indel mutations, specific sequence replacements or insertions and large deletions or genomic rearrangements at any desired location in the genome. In addition, Cas9 can also be used to mediate upregulation of specific endogenous genes or to alter histone modifications or DNA methylation. Recently, a so-called class 2 type VI CRISPR system has been identified in *Leptotrichia shahii*. This CRISPR system is characterized by the presence of the single effector protein C2C2. C2C2 lacks homology to any known DNA nuclease domain but contains two Higher Eukaryotes and Prokaryotes Nucleotide-binding (HEPN) domains and is thought to function solely as an RNA-guided RNA-targeting CRISPR effector.

Validation data

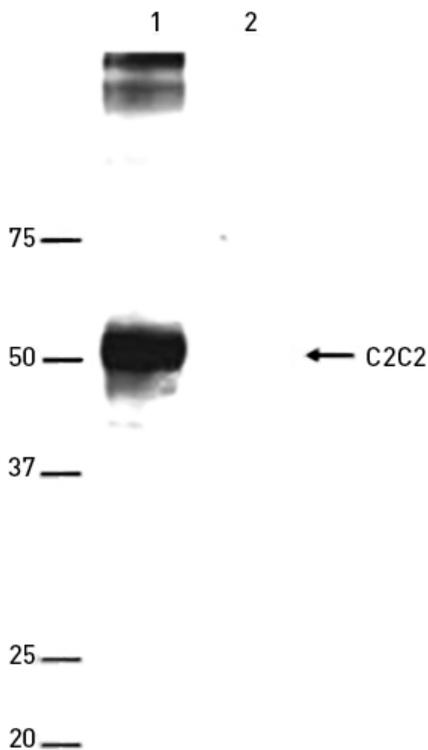


Figure 1. Western blot analysis using the Diagenode monoclonal antibody directed against C2C2

Western blot was performed on protein extracts from U2OS cells spiked with a partial recombinant C2C2 protein (430 AA, lane 1), using the Diagenode antibody against C2C2 (Cat. No. C15200249), diluted 1:1,000 in PBS-T containing 0.5% NFD. Lane 2 shows the result of U2OS protein extracts only, used as negative control. The marker is shown on the left, the position of the C2C2 protein is indicated on the right.