

## PspCas13b monoclonal antibody

**Cat. No. C15200250**

Type: Monoclonal	Specificity: Prevotella sp.
Size: 50 µg	Isotype: IgG2a
Concentration: 2 µg/µl	Host: Mouse
Lot No.: 002	Purity: Protein G purified monoclonal antibody.
Storage buffer: TBS containing 0.02 % 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

Monoclonal antibody raised in mouse against the Cas13b protein from Prevotella sp. (CRISPR associated protein 13b) using a recombinant protein.

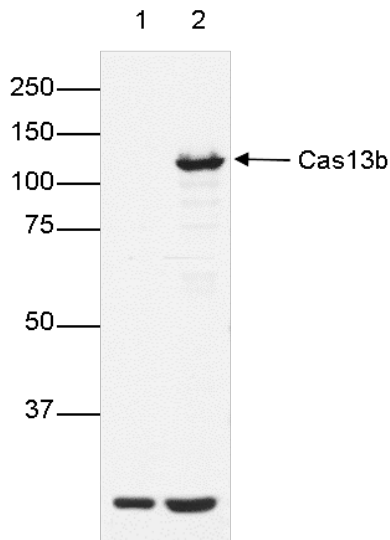
### Applications

Applications	Suggested dilution	References
Western blotting	1:1,000 – 1:4,000	Fig 1, 2

### Target Description

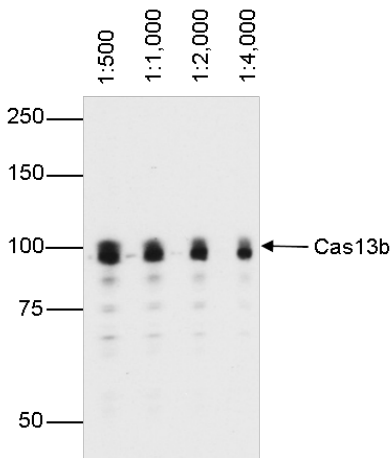
CRISPR systems are adaptable immune mechanisms which are present in many bacteria to protect themselves from foreign nucleic acids, such as viruses, transposable elements or plasmids. The CRISPR/Cas9 (CRISPR-associated protein 9 nuclease) system from *S. pyogenes* was the first to be adapted for inducing 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 which is characterized by the presence of the single effector protein. Cas13b is one of the three proteins belonging to the class 2 type VI system identified so far. These proteins lack homology to other DNA nuclease domains but contain two Higher Eukaryotes and Prokaryotes Nucleotide-binding (HEPN) domains and are 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 Cas13b**

Western blot was performed on protein extracts from HEK293 cells (lane 1) and from HEK293 cells transiently expressing full-length Cas13b (lane 2), using the Diagenode antibody against Cas13b (Cat. No. C15200250). The antibody was diluted 1:1,000 in PBS-T containing 0.5% NFD. The marker is shown on the left, the position of the Cas13b protein is indicated on the right. The bottom panel shows the result of a WB performed with an actin antibody, used as a loading control.



**Figure 2. Western blot analysis using the Diagenode monoclonal antibody directed against Cas13b**

Western blot was performed on protein extracts from HEK293 cells transiently expressing full-length Cas13b, using the Diagenode antibody against Cas13b (Cat. No. C15200250). The antibody was used at different dilutions. The marker is shown on the left, the position of the Cas13b protein is indicated on the right.