CRISPR-Cas13a Alexa Fluor® 350-conjugated Antibody

Monoclonal Rabbit IgG Clone # 2608C
Catalog Number: FAB10463U
100 µg

DESCRIPTION

Specificity	Detects CRISPR-Cas13a in direct ELISAs.
Source	Monoclonal Rabbit IgG Clone # 2608C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived recombinant CRISPR-Cas13a Ser2-Asn1300 Accession # WP_003034647
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)-associated endonuclease from Prevotella and Francisella 1, Cpf1, also known as Cas12a, is a 1200-1500 amino-acids long monomeric protein that belongs to the CRISPR/Cas system (1, 2), an adaptive immune system of prokaryotes that has now become a powerful tool for genome editing (3). CRISPR/Cpf1 belongs the class II (type 5) of the CRISPR/Cas system that is defined by a single-subunit effector (4). Cpf1 has recently emerged as an alternative for Cas9, due to its distinct features (2, 5) such as the ability to target T-rich motifs, no need for trans-activating crRNA, inducing a staggered double-strand break and potential for both RNA processing and DNA nuclease activity. In addition, Cpf1 is able to process more structured pre-CRISPR/RNA(crRNA) molecules into mature crRNAs (6) which allows the possibility to use both mature or pre-crRNA for genome editing purposes(7). All these features make the CRISPR-Cpf1 system a valuable genome-engineering tool (8). CRISPR-Cpf1(Cas12a) has been successfully used to edit genomes in mammalians cells (2), plants (9), mice (10), Drosophila (11) and recently zebrafish and Xenopus (7). Two Cpf1 orthologs have been commonly used for genome editing in different organisms: AsCpf1 and LbCpf1, which are derived from Acidaminococcus sp. BV3L6 and Lachnospiraceae bacterium ND2006, respectively (8).The attached nuclear localization signals (NLSs) on the chimeric protein ensures nuclear compartmentalization in cells during gene editing (12).

PRODUCT SPECIFIC NOTICES

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475