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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Anti-GFP [cAbGFP4] Standard Size Ab03619-23.159

Isotype and Format: Rabbit IgG-Fc fusion
Clone Number: cAbGFP4
Alternative Name(s) of Target: Green fluorescent protein; GFP-Enhancer; anti-GFP-GBP1; GBP1; Enhancer
UniProt Accession Number of Target Protein: P42212
Published Application(s): crystallization, in vitro, SPR, WB
Published Species Reactivity: Aequorea victoria (Water jellyfish, Mesonema victoria)
Immunogen: The original antibody was generated by immunizing alpaca with GFP. A phage display library was constructed and the antibody was selected by panning against GFP.
Specificity: The antibody is specific for green fluorescent protein. The antibody binds wtGFP in a frontwise manner at an exposed loop region between GFP β-strands 6 and 7 as well as parts of β-strand 8.
Application Notes: The antibody could enhance GFP fluorescenceincrease by a factor of 10 in vitro. A comparable fluorescence modulation was also observed after addition of the antibody to soluble cell extract derived from human embryonic kidney (HEK) 293T cells expressing eGFP. The crystal structure of the GFP–antibody complex was determined. The dissociation constant of the antibody was measured (Kd= 0.59 nM). The fluorescence-enhancement effect induced by binding of GFP to the antibody was used to track inducible translocation of the human estrogen receptor in HeLa-Kyoto cell line (Kirchhofer et al., 2010; PMID: 20010839). In order to improve the affinity for GFP two antibodies that recognize different portions of GFP were linked together. In particular, the antibody was fused together with LaG16 through a (GGGGS)4 linker. The binding affinity of LaG16, GFP-enhancer and the construct with the (GGGGS)4 linker to GFP was measured by ITC (Kd= 6.7, 24.3 and 0.5 nM respectively).Further, the GFP-enhancer-(GGGGS)4-LaG16 chimeric nanobody was covalently linked to NHSactivated agarose and used for protein purification. The purification of the membrane protein GFP-zfP2X4 showed that the chimeric nanobody performed better than the single the antibody Enhancer alone (Zhang et al., 2020). The antibody detected protein extracts of GFP from 293T cells by western blot analysis. The antibody detected GFP in human 293T cells (US20130323747). The binding affinity of the VHH fragment to GFP was measured by surface plasmon resonance (Kd= 0.32 nM) (Saerens et al., 2005; PMID: 16095608). The VHH fragment was coupled microbubbles and the ability of µB-cAbGFP4 to recognize eGFP was confirmed by fluorescence microscopy (Hernot et al. 2012; PMID: 22197777).
Antibody First Published in: Saerens et al. Identification of a universal VHH framework to graft non-canonical antigen-binding loops of camel single-domain antibodies. J Mol Biol. 2005 Sep 23;352(3):597-607.

PMID:16095608

Note on publication: The original paper describes the generation and characterization of the antibody

Product Form

Size: 200 µg Purified antibody.
Purification: Protein A affinity purified
Supplied In: PBS with 0.02% Proclin 300.
Storage Recommendation: Store at 4^{o}C for up to 3 months. For longer storage, aliquot and store at -20^{o}C.
Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.