



# SZABO SCANDIC

Part of Europa Biosite

## 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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Anti-gelatinase B [REGA-3G12] Bulk Size Ab04197-10.3-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This is a reformatted human IgG1 Fc Silent Fc Silent™ antibody, based on the original human IgG1 format, created for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Human IgG1, Fc Silent™, Kappa

**Clone Number:** REGA-3G12

**Alternative Name(s) of Target:** GB; GELB; MMP 9; MMP9; MMP-9; gelatinase MMP 9; 92-kDa gelatinase; matrix metalloproteinase 9; Matrix metalloproteinase-9; neutrophil gelatinase; natural human neutrophil gelatinase B; type V collagenase; 92-kDa type IV collagenase; macrophage gelatinase; 95 kDa type IV collagenase/gelatinase; collagenase IV; collagenase type IV; type IV collagen metalloproteinase; 3G12; 3G12T; 3G12 scFv; 3G12scFv

**UniProt Accession Number of Target Protein:** P14780

**Published Application(s):** immunoblot, inhibition, IP, WB, ELISA

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by immunizing Balb/c mice with a purified gelatinase B enzyme preparation.

**Specificity:** This antibody is specific for human gelatinase B; it recognizes the catalytic site region between Trp<sub>116</sub> and Lys<sub>214</sub> of the enzyme's globular aminoterminal part. A dimer scFv (with a His<sub>6</sub> tag) variant of this antibody was found to cross-react with gelatinase A.

**Application Notes:** The specificity of this antibody's original format (mouse IgG1, κ) was evaluated by ELISA; it specifically bound to gelatinase B with a binding affinity of  $2.1 \times 10^{-9}$  M. This antibody detected both native and H<sub>2</sub>NPhACHg-treated gelatinase B in an immunoblot, both in non-reducing and reducing conditions. Furthermore, this antibody was found to inhibit gelatinase B activity *in vitro* (Paemen et al., 1995; PMID: 8575432). The binding of the scFv version of this antibody to gelatinase B was confirmed in an ELISA. The original antibody and its F(ab')<sub>2</sub> and scFv derivatives inhibited gelatinase B *in vitro* (Zhou et al., 1997; PMID: 9323036). The following scFv derivatives of this antibody were evaluated for their inhibitory effect toward gelatinase B: REGA-3G12 scFv with (His<sub>6</sub>) monomer (10 μM), REGA-3G12 scFv with (His<sub>6</sub>) dimer (5 μM), and REGA-3G12 scFv without a tag (1.25, 2.5, and 5 μM). They achieved 6.5%, 65.9%, 8.8%, 32.4%, and 44.4% inhibitory activity, respectively. Moreover, the scFv His-tag dimer variant was found to cross-react with gelatinase A with a 75% inhibitory activity (same antibody concentration) (Hu et al., 2004;

PMID: 15104254). The original format of the antibody was used to detect and characterize the binding of this antibody to gelatinase B via immunoprecipitation (IP) and Western blot (WB), and the catalytic domain in the aminoterminal segment of gelatinase B was identified as its target (Martens et al., 2007; PMID: 17137715).

**Antibody First Published in:** Paemen et al. Monoclonal antibodies specific for natural human neutrophil gelatinase B used for affinity purification, quantitation by two-site ELISA and inhibition of enzymatic activity Eur J Biochem. 1995 Dec 15;234(3):759-65. doi: 10.1111/j.1432-1033.1995.759\_a.x [PMID:8575432](#)

**Note on publication:** The original publication focuses on the production and characterization of mouse monoclonal antibodies specific for natural human neutrophil gelatinase B.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°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.