



Recombinant Rhodocytin ($\alpha\beta$ subunit complex)

Background

Rhodocytin (also called as aggretin), a snake venom protein obtained from the Malayan pit viper *Calloselasma rhodostoma*, induces platelet aggregation through C-type lectin-like receptor 2 (CLEC-2)[1]. It is classified as snakes (Snake venom C-type lectins), having a basic heterodimeric structure with two subunits, α (136 amino acids) and β (123 amino acids), that are nearly always linked covalently via a disulfide bond[2,3]. Recently, it has been reported that rhodocytin forms larger complex such as heterooctamer [4,5]. This product is a recombinant protein that is functionally equivalent to natural rhodocytin.

Source	CHO cell
Synonyms	Aggretin
Formulation	PBS
Molecular weight	60kD
Concentration	100 μ g/mL (1.67 μ M)
Volume	100 μ L
Purification	Ion exchange column and gel filtration column
Purity	>95% by SDS-PAGE stained by Coomassie Blue
Storage	Store at -20°C

Reference

1. Suzuki-Inoue K et al., Blood. 2006; 107: 542-549.
2. Clemetson KJ, Toxicon. 2010; 56: 1236-1246.
3. Chung CH et al., BBRC. 1999; 263: 723-727.
4. Nagae M et al., Structure. 2014; 22: 1711-1721.
5. Sasaki T et al., J Thromb Haemost. 2018;16(5):960-972.

Application: Platelet aggregation assay

Human PRP(platelet rich plasma) were stirred at 1,400 rpm in small cuvettes (100 μ L/cuvette) at 37°C for 1 min on a platelet aggregometer (MCM Hema Tracer 712; MC Medical, Tokyo, Japan). Light transmission of human PRP after addition of 10 μ L of test solution (recombinant rhodocytin) was monitored for 10 min using PPP(platelet poor plasma) as a reference.

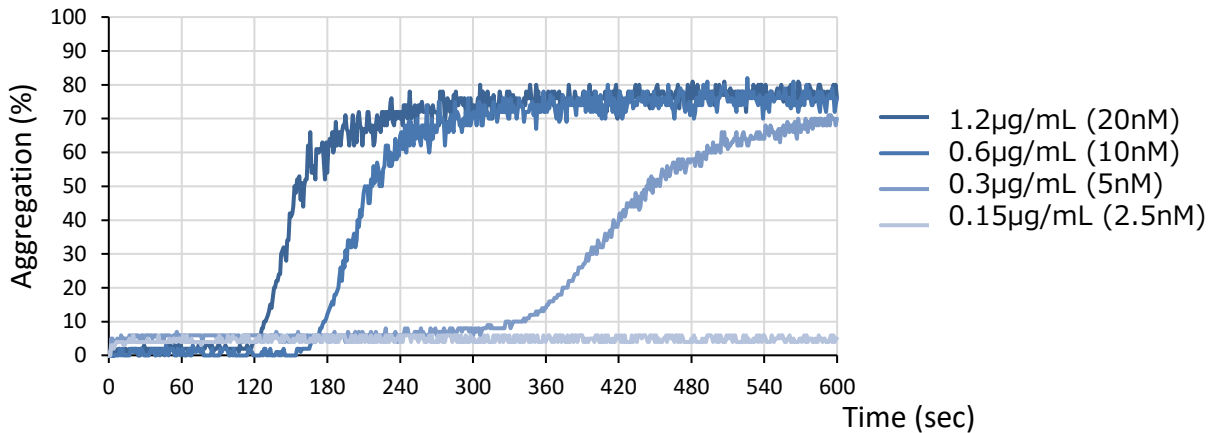


Fig. 1 Platelet aggregation curve with human PRP

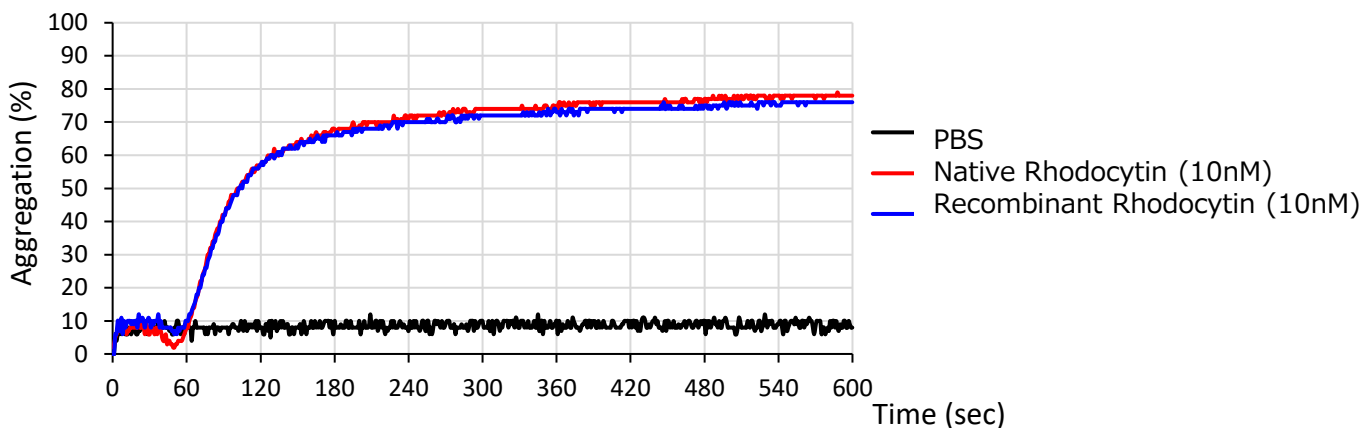


Fig. 2 Platelet aggregation curve with washed human platelets

Reference

Sasaki T, Shirai T, Tsukiji N, Otake S, Tamura S, Ichikawa J, Osada M, Satoh K, Ozaki Y, Suzuki-Inoue K. Functional characterization of recombinant snake venom rhodocytin: rhodocytin mutant blocks CLEC-2/podoplanin-dependent platelet aggregation and lung metastasis. *J Thromb Haemost.* 2018 May;16(5):960-972.

For research use only, Not for diagnostic use.



COSMO BIO CO., LTD.

【JAPAN】
TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
KOTO-KU, TOKYO 135-0016, JAPAN
Phone: +81-3-5632-9610
FAX: +81-3-5632-9619
URL: <https://www.cosmobio.co.jp/>



COSMO BIO USA

【Outside Japan】
2792 Loker Ave West, Suite 101
Carlsbad, CA 92010, USA
email: info@cosmobiousa.com
Phone/FAX: (+1) 760-431-4600
URL: www.cosmobiousa.com