X650

Product Information

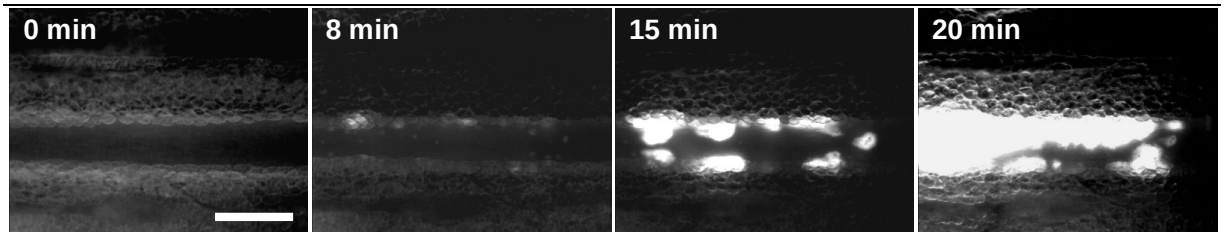
Catalog Number:	X650
Isotype:	Rat IgG (Wistar), derivatized
Contents:	100 µg DyLight650-labeled immunoglobulin derivative in phosphate buffered saline containing 0.2% BSA
Concentration:	0.1 mg/ml

For research use only, not for diagnostic or therapeutic use. This product is no medical device.

Specificity: This antibody preparation contains a rat IgG derivative against the GPIbβ subunit of the murine platelet/megakaryocyte-specific GPIb-V-IX complex. The modified antibody has been optimized for the easy and stable *in vivo* labeling of circulating platelets in mice. At the recommended concentration (0.1 µg/g body weight), X650 is non-cytotoxic and does not interfere with platelet adhesion and aggregation *in vivo*. Also, X650 at the recommended concentration does not alter platelet adhesion on collagen/von Willebrand factor *in vitro*.[1] *In vivo* platelet labeling has been used for intravital microscopical analysis of platelet involvement in pathological processes, such as thrombosis.[2,3]

Preparation and Storage: The antibodies were purified from hybridoma cell culture supernatant by Protein G-Sepharose chromatography and biochemically modified. Stable for six months from date of shipment when stored at 4°C in the dark. KEEP STERILE, the preparation contains no preservative.

Usage: This preparation is optimized for rapid and stable *in vivo* labeling of mouse platelets. Use 0.1µg (1 µl) X650 per gram body weight in an appropriate volume (50 - 200 µl) of sterile PBS for i.v. injection. Platelet can be visualized using appropriate filter sets and a light-sensitive camera. Recommended exposure time: 200 – 400 ms.



***In vivo* fluorescence microscopy of arterial thrombus formation using X650.** An anesthetized mouse (15 g) received 1.5 µg X650 in sterile PBS intravenously and the mesenteric artery was gently exteriorized through a midline abdominal incision. Arterioles (35-60 µm diameter) were visualized with a Zeiss Axiovert 200 inverted microscope (x10) equipped with a 100 W HBO fluorescent lamp source and a CoolSNAP-EZ camera (Visitron, Munich Germany). Exposure time: 250 ms. Injury was induced by topical application of a 3 mm^2 filter paper saturated with $FeCl_3$ (15%) for 10 s. Adhesion of single platelets can be detected at t=5 min.

References

1. emfret Analytics, unpublished
2. Falati *et al*. (2002) Real-time in vivo imaging of platelets, tissue factor and fibrin during arterial thrombus formation in the mouse. Nature Medicine **8**, 1175-1181
3. Grosse *et al.*, (2007): An EF hand mutation in Stim1 causes premature platelet activation and bleeding in mice. J Clin Invest. **117**, 3540-3550