

## Product datasheet

# protag-HiRes anti-RFP-X4 AF568

#### Short overview

 Cat. No.
 82411L

 Quantity
 200 μl

### Product description

Host Llama/alpaca

Antibody Type Recombinant, produced in E.coli

**Isotype** Single-domain antibody

Clone 2B12/ 2A1 Immunogen RFP

Formulation 1.25 μM of each fluorescently labeled single-domain antibody clone in buffered saline, 50%

glycerol, 0.09% sodium azide; 5 µM total fluorophore concentration

Note Centrifuge prior to opening

Conjugate AF568

**Purification** Affinity chromatography

Storage Up to 3 months: -20°C; up to 12 months: -80°C or below; protect from light!

Intended use Research use only

Application ICC/IF

**Reactivity** dsRed1/dsRed2, mCherry, mOrange2, mRFP, mScarlet-i, tdTomato

No reactivity Dendra2, Dronpa, tdEOS, mEOS3.2, mRuby3, mTFP, GFP, mTagBFP or their most common

derivatives

### **Applications**

Immunocytochemistry (ICC)

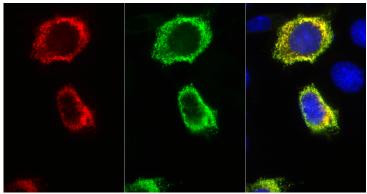
1:500

## Background

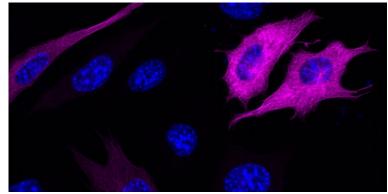
protag-HiRes anti-RFP is a blend of two camelid single-domain antibody (sdAb) produced by NanoTag Biotechnologies GmbH. It is ideal to detect mRFP and mCherry.

In protag-HiRes anti-RFP-X4, two fluorophore molecules are site-specifically coupled to each individual single-domain antibody. The blend of two camelid single-domain antibodies therefore simultaneously targets up to four fluorophores to the protein of interest, which ensures extra-bright signals. Owing to the small size of our protag single-domain antibodies, the distance between the target epitope and each fluorophore is below 4 nm. In comparison to conventional detection systems using conventional antibodies, our protag-HiRes anti-RFP-X4 can thus improve the localization accuracy by 10-15 nm. Both features superior brightness and precise fluorophore placement - render our protag-HiRes anti-RFP-X4 products excellent tools for all microscopy techniques.

## **Product images**



Immunostaining of PFA fixed 3T3 cells expressing a TOM70-mCherry reporter protein with protag-HiRes anti-RFP-X4 Atto 647N (dilution 1:500, the mCherry signal is represented in red, the corresponding protag-HiRes signal is represented in green and the merge of both channels is represented in yellow). Nuclei were visualized by DAPI staining (blue)(courtesy of NanoTag Biotechnologies GmbH).



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