

## Product datasheet

### protag-HiRes anti-mScarlet-i-X2 Abberior® Star RED

#### Short overview

<b>Cat. No.</b>	84202L
<b>Quantity</b>	200 µl

#### Product description

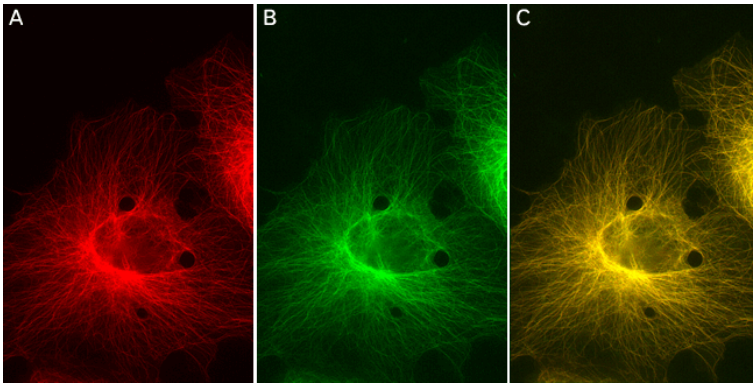
<b>Host</b>	Llama/alpaca
<b>Antibody Type</b>	Recombinant, produced in E.coli
<b>Isotype</b>	Single-domain antibody
<b>Clone</b>	2B12
<b>Immunogen</b>	RFP
<b>Formulation</b>	2.5 µM fluorescently labeled single-domain antibody in buffered saline, 50% glycerol, 0.09% sodium azide
<b>Note</b>	Centrifuge prior to opening
<b>Purification</b>	Affinity chromatography
<b>Storage</b>	Up to 3 months: -20°C; up to 12 months: -80°C or below; protect from light!
<b>Intended use</b>	Research use only
<b>Application</b>	ICC/IF
<b>Reactivity</b>	dsRed1/dsRed2, mCherry, mOrange2, mRFP, mScarlet-i, tdTomato
<b>No reactivity</b>	Dendra2, Dronpa, tdEOS, mEOS3.2, mRuby3, mTFP, GFP, mTagBFP or their most common derivatives

#### Background

protag-HiRes anti-mScarlet-i camelid single-domain antibody (sdAb) produced by NanoTag Biotechnologies GmbH. It recognizes mScarlet-i in its native conformation with high affinity and specificity. It can also recognize some mRFP-derived red fluorescent protein like mOrange2, dsRed, tdTomato, mRFP and mCherry in its native conformation. It does not cross-react with GFP or mTagBFP derivatives.

In protag-HiRes anti-mScarlet-i-X2, two fluorophore molecules are site-specifically coupled to each individual single-domain antibody. protag-HiRes anti-mScarlet-i-X2 can therefore simultaneously target two fluorophores to your protein of interest, which results in enhanced image brightness. Owing to the small size of our 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, the protag-HiRes anti-mScarlet-i-X2 can thus improve the localization accuracy by 10-15 nm. Both features - enhanced brightness and precise fluorophore placement - render the protag-HiRes anti-mScarlet-i-X2 products superior tools for all microscopy techniques.

#### Product images



COS cells transfected with mScarlet-i-tubullin (A) and stained with protag-HiRes anti-mScarlet-i-X2 Atto 488 (B, Cat. No. 84205). Overlay in (C)(courtesy of NanoTag Biotechnologies GmbH).