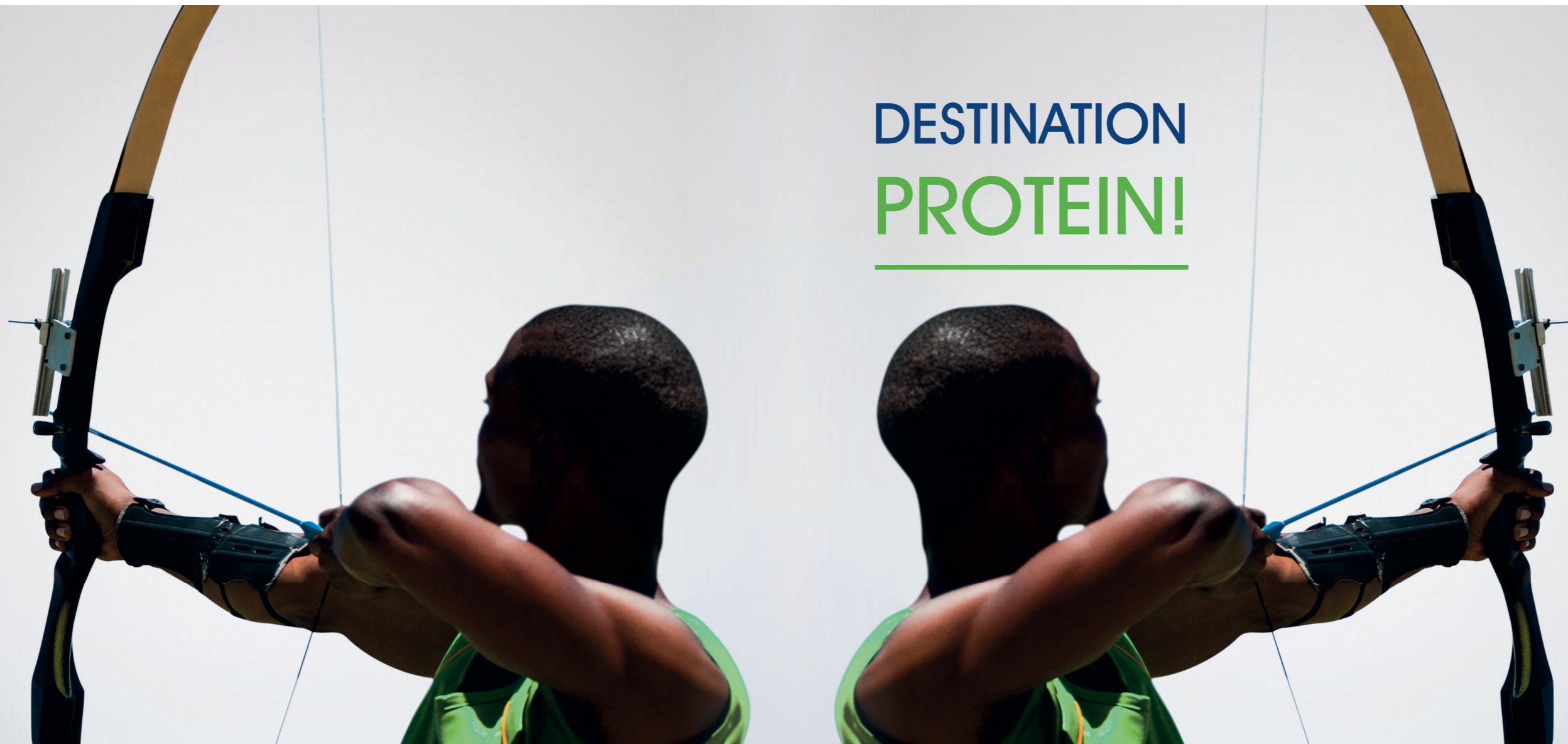


DESTINATION PROTEIN!



PROTAG SINGLE DOMAIN ANTIBODIES
FOR ADVANCED PROTEIN DETECTION & PURIFICATION



PROTAG SINGLE DOMAIN ANTIBODIES
FOR ADVANCED PROTEIN DETECTION & PURIFICATION

CONTACT US

info@progen.com
www.progen.com

SHOP ONLINE

and browse our selection
of >100 differently labeled
protag antibodies



MICROSCOPY & BIOCHEMISTRY

Breach conventional detection barriers to facilitate localization of multiple structures and access your target protein with high affinity to enable superior quantification, using

- **protag-HiRes** primary sdAbs
- **protag-HiSec** secondary sdAbs
- **protag-HiPur** sdAbs on agarose beads



PROGEN
passion for research

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courtesy of Nanotag Biotechnologies GmbH;
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PROGEN
passion for research



Protag: single domain antibodies that outperform conventional immunoglobulins

Protags are single domain antibodies (sdAb) that consist of a single, monomeric variable antibody domain, representing the antigen binding domain of a common antibody with two heavy and two light chains. Since the variable domain is responsible for the specific antigen recognition, sdAbs show the same selectivity and specificity as common antibodies. The small size of sdAbs leads to an increased stability at high temperatures and decreased sensitivity to detergents and high concentrations of urea.

PROGEN's protag single domain antibodies are affinity tags that are derived from llamas or alpacas and are recombinantly produced in *E. coli**, thereby avoiding batch-to-batch variability.

* Manufactured by NanoTag Biotechnologies GmbH, Göttingen

PROTAG CENTRAL FEATURES



**10x
SMALLER**

than conventional antibodies (~15 kDa)



**LIGHT
WEIGHT
TAGS**

1 µg of protag contains 10x more molecules than 1 µg of conventional antibody



**NO
BATCH
EFFECTS**

Recombinant production in *E. coli* avoids batch variability & enables reproducible results



**SUPERIOR
MICROSCOPY**

**PROTAG
HiRes, HiSec**

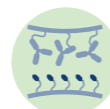
high tissue penetration, quick & efficient epitope finding and access even to difficult targets

high labeling density, uniform decoration of structures

no cluster artefacts, monovalent recognition of single epitopes

nm resolution for super resolution microscopy
extra bright signals through multiple fluorophores/molecule

quantitative imaging (defined number of fluorophores) and molecule counting



**RELIABLE
BIOCHEMISTRY**

**PROTAG
HiPur**

extremely stable binding efficiency, resistant to high salt, high temperatures (~60°C) and 4M urea

high density coupling on beads for improved pull-down with minimal bead consumption

site-specific linker coupling for optimal epitope access

covalently coupled sdAbs, no heavy or light chain contamination, suitable for mass spectrometry

3 protag sdAb categories for multiple applications

The significant advantages of protags over conventional Igs enable advanced protein detection and purification in microscopy and biochemistry. PROGEN offers three categories of protag antibodies that are highly specific with affinities tailored for a wide range of applications in immunofluorescence, immunocytochemistry, immunoprecipitation or mass spectrometry (protocols available).



protag-HiRes

primary sdAbs against common tags

fluorescently labeled primary sdAbs against four fluorescent tags (GFP, RFP, TagFP, mScarlet-i) and their variants

with one (protag-HiRes X1) or two (protag-HiRes X2) fluorophores linked to a single protag molecule

available as mix of two different protag molecules targeting the same protein, both labeled with two fluorophores, resulting in up to four fluorophore molecules per target protein (protag-HiRes X4)

available with 10 different fluorophores (Abberior® Star 488, Abberior® Star RED, Abberior® Star 580, Abberior® Star 635P, Atto 488, Atto 542, Atto 580, Atto 647N, Cy3, and Cy5)



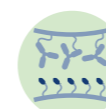
protag-HiSec

secondary sdAbs against common species

fluorescently labeled secondary sdAbs

against mouse, rabbit, guinea pig IgG and chicken IgY, respectively two fluorophore molecules linked to a single protag molecule (protag-HiSec X2)

available with 10 different fluorophores (Abberior® Star 488, Abberior® Star RED, Abberior® Star 580, Abberior® Star 635P, Atto 488, Atto 542, Atto 580, Atto 647N, Cy3, and Cy5)



protag-HiPur

sdAbs on agarose beads

sdAbs immobilized on 4% cross-linked agarose beads

against five of the most common tags used for tag fusion proteins (GST, MBP, GFP, RFP, and TagFP)

suitable for immunoprecipitation and mass spectrometry

no leakage of heavy and light chain during elution with SDS buffer

compatible with highly stringent buffers

high binding capacity because of small size of the sdAb and high accessibility

