Anti-human Nanog-NL493

Catalog Number: NL1997G
Lot Number: AATV02
100 Tests in 50 µL staining volume
20 Tests in 250 µL staining volume

Reagents Provided

NorthernLights™ 493 (NL493)-conjugated affinity purified goat polyclonal anti-human Nanog: Supplied as a 10X solution of antibody in 0.5 mL PBS containing 0.1% sodium azide.

Clone #: N/A

Antibody type: goat polyclonal

Storage

Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2° - 8° C.

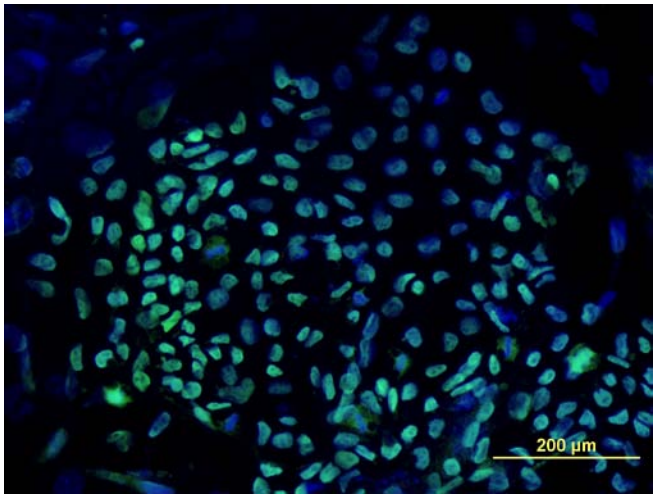
Intended Use

Designed to visualize the expression of Nanog by fluorescence microscopy.

Product Description

This antibody was produced in goats immunized with purified, *E. coli*-derived, recombinant human Nanog (rhNanog; aa 153 - 305). Human Nanog specific IgG was purified by human Nanog affinity chromatography. The affinity purified antibody was then conjugated to fluorochrome NL493. The spectral characteristics of NL493 are provided, along with those of FITC and Alexa Fluor® 488 for comparison.

Fluorochrome	Absorption Maximum (nm)	Emission Maximum (nm)
NL493	493	514
FITC	492	520
Alexa Fluor® 488	495	519



Nanog-NL493

BG01V cells were stained with NL493-conjugated anti-human Nanog (Catalog # NL1997G, green) and counterstained with DAPI (blue).

Background Information

Nanog is a member of the homeobox family of DNA binding transcription factors that has been shown to maintain pluripotency of embryonic stem cells. Its expression is high in undifferentiated embryonic stem cells, and is down-regulated during embryonic stem cell differentiation, concomitant with loss of pluripotency.[1-3]

References

1. Mitsui, K. *et al*. (2003) Cell **11**(3):631.
2. Chambers, I. *et al*. (2003) Cell **113**(5):643.
3. Hart, A.H. et al. (2004) Dev. Dyn. **230**(1):187.

Immunocytochemistry Validation

This antibody has been tested for immunocytochemistry using BG01V cells. Cells were fixed in PBS containing 4% paraformaldehyde, and blocked with PBS containing 10% normal donkey serum, 0.1% Triton® X-100, and 1% BSA. After blocking, cells were incubated with NL493-conjugated antibody at a final concentration of 1X (1:10 dilution) in blocking buffer for 3 hours at room temperature in the dark. Between each step, cells were washed with PBS containing BSA. If a staining volume of 250 µL is used, this kit can be used for 20 tests; 100 tests can be done in a staining volume of 50 µL

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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