## **Product Datasheet**

### SR101-Phe-CMK Serine Protease Assay Kit NBP2-31124

Unit Size: 100 Tests

Storage of components varies. See protocol for specific instructions.

www.novusbio.com



technical@novusbio.com

Protocols, Publications, Related Products, Reviews, Research Tools and Images at: www.novusbio.com/NBP2-31125

Updated 12/13/2023 v.20.1

# Earn rewards for product reviews and publications.

Submit a publication at www.novusbio.com/publications Submit a review at www.novusbio.com/reviews/destination/NBP2-31125



#### NBP2-31124

SR101-Phe-CMK Serine Protease Assay Kit

| Product Information         |  |
|-----------------------------|--|
| Unit Size                   | 100 Tests  |
| Concentration               | Concentration is not relevant for this product. Please see the protocols for proper use of this product.   |
| Storage                     | Storage of components varies. See protocol for specific instructions.  |
| Product Description         |  |
| Description                 | Detect changes in intracellular chymotrypsin-like enzyme activity in whole living cells with the FLISP, Fluorescent-Labeled Inhibitors of Serine Proteases, product line of assay kits. These kits utilize either a leucine (L) or phenylalanine (F) chymotrypsin-targeting amino acid residue linked on the amino terminus with either a carboxyfluorescein (FAM) or sulforhodamine 101 (SR) fluorescent reporter tag. The carboxyl end of the F or L amino acid residue contains a reactive group that targets the catalytic site of serine proteases, consisting of either a chloromethyl ketone (CMK) or (aminoalkyl) phosphonate diphenyl ester (DAP) reactive group.   |
| Specificity/Sensitivity     | Detect changes in intracellular chymotrypsin-like enzyme activity in whole living cells with the FLISP (TM), Fluorescent-Labeled Inhibitors of Serine Proteases, product line of assay kits. These kits utilize either a leucine (L) or phenylalanine (F) chymotrypsin-targeting amino acid residue linked on the amino terminus with either a carboxyfluorescein (FAM) or sulforhodamine 101 (SR) fluorescent reporter tag. The carboxyl end of the F or L amino acid residue contains a reactive group that targets the catalytic site of serine proteases, consisting of either a chloromethyl ketone (CMK) or (aminoalkyl) phosphonate diphenyl ester (DAP) reactive group. After quickly penetrating the lipid bilayer membranes of the target cell population, the chymotrypsin-targeting FLISP (TM), probes will interact with the active catalytic sites of chymotrypsin-like proteases, quickly forming covalent bonds with either the reactive site histidine (N-H) (with the CMK-type FLISP probes) or the reactive serine OH group (when DAP-containing FLISP probes are utilized). In either case, unbound FLISP reagent is easily removed during the wash step, leaving cells with greater quantities of active chymotrypsin-like enzyme activity with a greater fluorescence potential than cells that did not undergo an upregulation of serine protease activity. FLISP probes bearing FAM reporter dyes are excited at 488 nm and emit in the green wavelength range of 525 nm. The red fluorescence FLISP probes that utilize sulforhodamine 101 as the reporter dye are excited at 590 nm and emit at 620 nm. FLISP probes are cell permeant and non-cytotoxic at the concentrations suggested in the assay protocol. The SR101-F-CMK FLISP chymotrypsin enzyme detection assay kits can be used in conjunction with your existing apoptosis detection protocols. Each kit includes either 25 tests or 100 tests of SR101-F-CMK reagent, 10X wash buffer for removing excess FLISP probe following the FLISP incubation step, 10X fixative to stabilize cells if needed for next day analysis, and Hoechst |
| Preparation Method          | Method of Analysis: Flow Cytometer, Fluorescence Microscope, Fluorescence  |
|                             | Plate Reader Types of Samples: cell culture, tissue  |
| Product Application Details |  |
| Applications                | Flow Cytometry   |
| Recommended Dilutions       | Flow Cytometry   |





#### **Novus Biologicals USA**

10730 E. Briarwood Avenue Centennial, CO 80112 USA Phone: 303.730.1950 Toll Free: 1.888.506.6887 Fax: 303.730.1966 nb-customerservice@bio-techne.com

#### **Bio-Techne Canada**

21 Canmotor Ave Toronto, ON M8Z 4E6 Canada Phone: 905.827.6400 Toll Free: 855.668.8722 Fax: 905.827.6402 canada.inquires@bio-techne.com

#### **Bio-Techne Ltd**

19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB, United Kingdom Phone: (44) (0) 1235 529449 Free Phone: 0800 37 34 15 Fax: (44) (0) 1235 533420 info.EMEA@bio-techne.com

#### **General Contact Information**

www.novusbio.com Technical Support: nb-technical@biotechne.com Orders: nb-customerservice@bio-techne.com General: novus@novusbio.com

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Kits are guaranteed for 6 months from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP2-31125

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications

