

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                         |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Seipin/BSCL2 in direct ELISAs and Western blots.                                |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                     |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Seipin/BSCL2<br>Asn279-Ser398<br>Accession # Q96G97 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm               |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                  |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                               |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

BSCL2 (Bernardinelli-Seip Congenital Lipodystrophy type 2 protein; also Seipin) is a 70-74 kDa glycoprotein member of the seipin family of molecules. Although it has widespread expression, and has been specifically found in the endoplasmic reticulum (ER) of cortical and spinal motor neurons, basophils of the anterior pituitary, adipocytes and spermatids. Its function is unclear, but it is known to structurally resemble SREBPs, and thus may regulate gene transcription. Mutations are reported that involve its glycosylation site, causing protein misfolding and the initiation of apoptosis. Human BSCL2 is 398 amino acids (aa) in length. It contains two transmembrane segments (aa 27-47 and 243-263) plus an N-terminal (aa 1-26) and C-terminal (aa 264-398) cytoplasmic domain. BSCL2 is polyubiquitinated, and runs between 100-200 kDa in SDS-PAGE. There is an alternative start site 64 aa upstream of the standard site. This 462 aa isoform is considered to be the predominant isoform for BSCL2, and is associated with the 70-74 kDa MW cited above. There is one additional potential isoform variant that possesses a 63 aa substitution for aa 225-398. BSCL2 is reportedly cleaved, and generates a 40-41 kDa N-terminal fragment. Over aa 279-398, human BSCL2 shares 73% aa sequence identity with mouse BSCL2.

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