

# Taxol Receptor (82H): sc-66021

## BACKGROUND

Taxol, also known as paclitaxel, is a mitotic inhibitor derived from the bark of the Pacific yew tree (*Taxus brevifolia*). It is widely used in cancer chemotherapy as an anticancer drug, treating patients with ovarian, lung, breast, prostate, head and neck cancer, as well as other neoplasms. Taxol functions by binding to the Taxol Receptor, an event that induces a signaling cascade disrupting normal microtubule growth during cell division. More specifically, binding of Taxol to the Taxol Receptor results in an interaction with  $\beta$  Tubulin, promoting polymerization and stabilization of microtubules and resulting in G<sub>2</sub>/M phase arrest and subsequent apoptosis. Despite its success in anticancer drug treatment, Taxol has been associated with drug resistance as well as cross resistance with other chemotherapy drugs and serious side effects. One major side effect of Taxol is peripheral neurotoxicity, in which Taxol affects large myelinated nerve fibers causing mixed motor and sensory dysfunction, leading to severe disabling symptoms.

## REFERENCES

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## SOURCE

Taxol Receptor (82H) is a mouse monoclonal antibody raised against taxol-BSA conjugate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Taxol Receptor (82H) is available conjugated to agarose (sc-66021 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-66021 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-66021 PE), fluorescein (sc-66021 FITC), Alexa Fluor<sup>®</sup> 488 (sc-66021 AF488), Alexa Fluor<sup>®</sup> 546 (sc-66021 AF546), Alexa Fluor<sup>®</sup> 594 (sc-66021 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-66021 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-66021 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-66021 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Taxol Receptor (82H) is recommended for detection of the taxol binding site in Tubulin-microtubule interactions of mouse, rat and human origin by immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.