ImmunoBioScience Corp. (IBSC) *DATA SHEET*

R-PE conjugatedPNA (*Arachis hypogaea* (peanuts)

**Catalog number:**  LE-6883-22

**Description:** Peanut lectin (PNA) is an identical tetrameric carbohydrate free protein with MW of 110 kDa. Thomsen-Friedenreich antigen, T-antigen (Galβ1, 3GalNAc) is present on blood group M &N glycoproteins (after removal of sialic acid with neuraminidase), glyconjugates (Mucin type), gangliosides and many glycolipids. T antigen is rarely expressed on normal coloncytes whereas cells of malignant, premalignant cells express this antigen. Peanut lectin has widely been used to detect T antigen in malignant and premalignant cells. Peanut lectin contains one atom of Ca++ and Mg++ per unit.

**Phycoethyrin**: **Phycoethyrin (R-PE)** is a 240 kDa protein from the light-harvesting phycobilliprotein, phycoerythrin is composed of a protein part, organised in a hexameric structure of alpha and beta chains, covalently binding chromophores called phycobilins. In the phycoerythrin family, the phycobilins are: phycoerythrobilin, the typical phycoerythrin acceptor chromophore, and sometimes phycourobilin (marine organisms). Phycoerythrins are the phycobilliprotein which bind the highest number of phycobilins (up to six per alpha-beta subunit dimer).

R-PE purified from *Poryhyra tenera;* A565/A280 >5.0; A 1% 565 nm=82;

Amax = 490, 545 and 566 nm; E max = 580 nm

**Unit**: 1 ml Concentration**:** 1 mg of PNA conjugated with R-PE

**Presentation:** One mg of PNA is conjugated with approximately 2.5 mg of R-PE.

**Fluorophore:** R-PE

A max=566nm; E max=580nm

**Fluorophore/Protein:** A566nm/A280nm=4

**Application:** Immunofluorescence (IF) 1: 50-1:200

Flow cytometry 1: 100-1:500 (not tested at our lab)

The optimum dilution should be determined by the individual lab.

**Storage: Storage**: 2-8°C

**Buffer:** 10 bicarbonate, 150 mM NaCl, pH 8.2, 0.1 mM Calcium chloride and 0.05% sodium azide

**Inhibiting/Eluting sugars:** 200 mM Galactose

**Carbohydrate-Binding Specificity of PNA:** Galβ1, 3 GalNAc>>>>>GalNAc>Gal

**References:**

1. Bird, G Vox sang. 9: 748-759, 1964
2. Lotan, R etal. J Biol. Chem. 250: 8518-8523, 1975
3. Itzkowitz, SH etal. Cancer Research 49: 197-204, 1989
4. Yuan, M etal. Cancer research 46: 4841-4847, 1986

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**MSDS:** This product contains 0.05 % sodium azide as a preservative, appropriate care should be taken in handling. National Institute of Occupational Safety and Health has warning that sodium azide can react with lead, copper, brass or solder in the plumbing system and forms hydrazoic acid in acidic condition. Discard with copious amount of water. Avoid skin and eye contact with all laboratory products. Use appropriate lab. gear, lab coat , gloves and safety glasses. Do not ingest any lab. products. This product is not approved for administration in human or animals.

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Phone: + 1 425 367 4601; Fax: + 1 425 367 4817; cell (mobile) phone: + 1 425 314 0199

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