Tyr-Ile-Gly-Ser-Arg

Product Number  T 7154
Storage Temperature  -0 °C

Product Description
Molecular Formula:  \( \text{C}_{26}\text{H}_{42}\text{N}_{8}\text{O}_{8} \)
Molecular Weight:  594.7
CAS Number:  110590-64-2
pI:  approximately 8.5
Synonym:  YIGSR, Laminin Fragment 929-933

The pentapeptide Tyr-Ile-Gly-Ser-Arg (YIGSR) occurs from amino acids 929-933 in the protein laminin. The YIGSR sequence is the major receptor binding site in laminin. YIGSR was found to diminish the formation of lung colonies in mice injected with melanoma cells and to inhibit the invasiveness of the cells in vitro.¹

YIGSR inhibited primary tumor growth and tumor cell deposit in the bone, liver, and kidney in a mouse model of B-cell lymphoma.² In primary porcine aortic endothelial cells, YIGSR blocked the increased expression of endothelial nitric-oxide synthase (eNOS) as induced by laminin cells, by blocking cellular binding to laminin I.³ YIGSR has been shown to displace papain and cathepsin B-like proteinase in laminin-coated wells.⁴

YIGSR has been covalently immobilized to modified glass surfaces to study cell attachment and spreading with respect to the 67 kDa high affinity laminin receptor.⁵ Conjugates of YIGSR with polyethylene glycol and distearoylphosphatidylethanolamine have been synthesized, for potential application in liposome formulations.⁶

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (1 mg/ml), yielding a clear, colorless solution.

References