9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

CEA Protein

Carcinoembryonic Antigen Human
NTP0017

Product Overview

Name	CEA Protein

Description

Carcinoembryonic Antigen Human

Synonyms

CEACAM5, Meconium Antigen 100, Carcinoembryonic Antigen, CD66e Antigen, CD66e, Carcinoembryonic Antigen, CEA, oncofetal antigen.

Source

Liver tissue.

Physical Appearance

Sterile Filtered colorless solution.

Formulation

CEA protein solution contains 0.1M PBS, pH 7.4, 0.09 % NaN3 and 2 % methyl-mannoside.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Applications

Blood samples from tissue donors were tested and found to be negative for HBsAg, HIV-1 and HIV-2 antibodies and HCV.

Background

Carcinoembryonic Antigen, commonly known as CEA, is a glycoprotein that was initially identified as a tumor marker. Over the years, research into CEA has unveiled its intricate involvement in various physiological processes, not only in cancer but also in the context of normal development and inflammatory conditions. This research aims to delve into the multifaceted roles of CEA, exploring its structural intricacies, regulatory mechanisms, and its implications in health, disease, and beyond. Structural Complexity of CEA: CEA, belonging to the immunoglobulin superfamily, is a complex glycoprotein featuring multiple structural domains. Its diverse forms and glycosylation patterns contribute to its functional versatility. CEA is primarily expressed in fetal tissues, but its presence is often detected in adults under

pathological conditions, especially in various types of cancer. CEA in Cancer Biology: CEA was first recognized as a biomarker for colorectal cancer, but its overexpression is not limited to this context. Elevated CEA levels have been associated with several other malignancies, including breast, lung, and pancreatic cancers. CEA's involvement in cancer biology ranges from promoting angiogenesis and metastasis to inhibiting immune responses, making it a critical player in tumor progression and evasion. Beyond Cancer: CEA in Development and Inflammation: While CEA's role in cancer is prominent, recent studies have uncovered its participation in normal physiological processes. During embryonic development, CEA is involved in cell adhesion, contributing to tissue organization and morphogenesis. Additionally, CEA expression can be induced in inflammatory conditions, suggesting its involvement in immune responses and tissue repair mechanisms. CEA as a Diagnostic and Therapeutic Target: The diverse expression patterns of CEA in various diseases make it a valuable diagnostic tool. CEA assays are widely used for cancer screening, monitoring disease progression, and assessing treatment efficacy. Moreover, CEA's presence on the surface of cancer cells has made it a target for immunotherapy, enabling the development of targeted therapies aimed at specifically eradicating CEA-positive tumor cells.

Precautions

CEA Protein is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Carcinoembryonic Antigen, commonly known as CEA, is a glycoprotein that was initially identified as a tumor marker. Over the years, research into CEA has unveiled its intricate involvement in various physiological processes, not only in cancer but also in the context of normal development and inflammatory conditions. This research aims to delve into the multifaceted roles of CEA, exploring its structural intricacies, regulatory mechanisms, and its implications in health, disease, and beyond. Structural Complexity of CEA: CEA, belonging to the immunoglobulin superfamily, is a complex glycoprotein featuring multiple structural domains. Its diverse forms and glycosylation patterns contribute to its functional versatility. CEA is primarily expressed in fetal tissues, but its presence is often detected in adults under pathological conditions, especially in various types of cancer. CEA in Cancer Biology: CEA was first recognized as a biomarker for colorectal cancer, but its overexpression is not limited to this context. Elevated CEA levels have been associated with several other malignancies, including breast, lung, and pancreatic cancers. CEA's involvement in cancer biology ranges from promoting angiogenesis and metastasis to inhibiting immune responses, making it a critical player in tumor progression and evasion. Beyond Cancer: CEA in Development and Inflammation: While CEA's role in cancer is prominent, recent studies have uncovered its participation in normal physiological processes. During embryonic development, CEA is involved in cell adhesion, contributing to tissue organization and morphogenesis. Additionally, CEA expression can be induced in inflammatory conditions, suggesting its involvement in immune

responses and tissue repair mechanisms. CEA as a Diagnostic and Therapeutic Target: The diverse expression patterns of CEA in various diseases make it a valuable diagnostic tool. CEA assays are widely used for cancer screening, monitoring disease progression, and assessing treatment efficacy. Moreover, CEA's presence on the surface of cancer cells has made it a target for immunotherapy, enabling the development of targeted therapies aimed at specifically eradicating CEA-positive tumor cells.