

AUD-S100

Name: AUD-S100

Synonyms: MIW 815

Indication: Multiple tumors

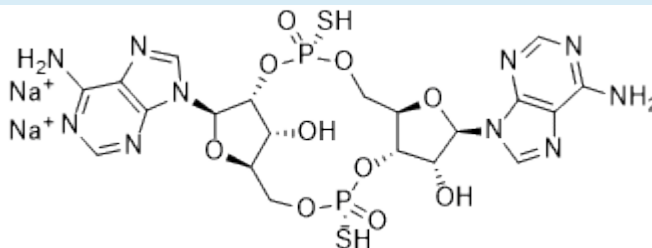
Company: Aduro Biotech; Novartis

ADU-S100 (MIW815) is a synthetic cyclic dinucleotide (CDN) agonist (activator) of Stimulator of Interferon Genes (STING), a receptor crucial to activate the innate (endogenous) immune system. ADU-S100 (MIW815) activates all known human and mouse STINGs, and effectively induces the expression of cytokines and chemokines, leading to a robust and durable antigen-specific T-cell mediated immune response against cancer cells.

ADU-S100 Lead Candidate from the STING Pathway Activator Technology

Aduro is developing ADU-S100, a novel synthetic molecule that activates human STING (Stimulator of Interferon Genes), in collaboration with Novartis. ADU-S100 is being evaluated in a Phase 1 clinical trial in cutaneously-accessible tumors, including breast, head-and-neck, and renal cell cancers as well as lymphoma and melanoma. The trial is evaluating the ability of ADU-S100 to activate the immune system and recruit specialized immune cells to attack the injected tumor as well as distant metastases.

CHEMICAL STRUCTURE



THEORETICAL ANALYSIS

MedKoo Cat#: 563729

Name: ADU-S100

CAS#: 1638750-95-4 (sodium)

Chemical Formula: C₂₀H₂₄N₁₀Na₂O₁₀P₂S₂+

Exact Mass:

Molecular Weight: 736.518

Elemental Analysis: C, 32.62; H, 3.28; N, 19.02; Na, 6.24; O, 21.72; P, 8.41; S, 8.71

Related CAS #: 1638750-95-4 (sodium) 1638241-89-0 (free acid)

Synonym: ADU-S100; ADU S100; ADUS100; ML RR-S2 CDA sodium salt; MIW815; MIW-815; MIW 815;

IUPAC/Chemical Name: (2',3')-Rp,Rpc-diAMPS disodium

InChi Key: GDWOOOCBNOMMTL-ITQXCAEYSA-N

InChi Code: InChI=1S/C20H24N10O10P2S2.2Na/c21-15-9-17(25-3-23-15)29(5-27-9)19-12(32)13-8(38-19)2-36-42(34,44)40-14-11(31)7(1-35-41(33,43)39-13)37-20(14)30-6-28-10-16(22)24-4-26-18(10)30;;/h3-8,11-14,19-20,31-32H,1-2H2,(H,33,43)(H,34,44)(H2,21,23,25)(H2,22,24,26);;/q;2*+1/t7-,8-,11-,12-,13-,14-,19-,20-,41-,42-;;/m1../s1

SMILES

Code: O[C@@H]1[C@H](O[C@H]([C@@H]1O2)N3C4=C(N=C3)C(N)=NC=N4)CO[P@@](S)(O[C@H]5[C@H]([C@@H](O[C@@H]5CO[P@]2(S)=O)N6C7=C(N=C6)C(N)=NC=N7)O)=O.[Na+].[Na+]

TECHNICAL DATA

Appearance:

Solid powder

Purity:

>98% (or refer to the Certificate of Analysis)

Shipping Condition:

Shipped under ambient temperature as non-hazardous chemical. This product is stable enough for a few weeks during ordinary shipping and time spent in Customs.

Storage Condition:

Dry, dark and at 0 - 4 C for short term (days to weeks) or -20 C for long term (months to years).

Solubility:

Soluble in DMSO

Shelf Life:

>3 years if stored properly

Drug Formulation:

This drug may be formulated in DMSO

Stock Solution Storage:

0 - 4 C for short term (days to weeks), or -20 C for long term (months).

Harmonized System Code:

2934990300

STING-activating Cyclic Dinucleotide Agonist MIW815 (CUI CL504551)

Terms & Properties

Synonym Details

Relationships

By Source

View All

Terms & Properties

Concept Unique Identifier (CUI): CL504551

NCI Thesaurus Code: C125902 ([see NCI Thesaurus info](#))

Semantic Type: Pharmacologic Substance

NCIt Definition: A synthetic, cyclic dinucleotide (CDN) and agonist of stimulator of interferon genes protein (STING; transmembrane protein 173; TMEM173), with potential immunomodulating and antineoplastic activities. Upon intratumoral administration, the STING agonist MIW815 binds to STING and stimulates STING-mediated pathways. This activates the immune response through the activation of certain immune cells, including dendritic cells (DCs), which induces the expression of cytokines and chemokines, and leads to an antigen-specific T-cell mediated immune response against cancer cells. STING, a transmembrane protein that activates immune cells in the tumor microenvironment, plays a key role in the activation of the innate immune system.

PDQ Definition: A synthetic, cyclic dinucleotide (CDN) and agonist of stimulator of interferon genes protein (STING; transmembrane protein 173; TMEM173), with potential immunomodulating and antineoplastic activities. Upon intratumoral administration, the STING agonist MIW815 binds to STING and stimulates STING-mediated pathways. This activates the immune response through the activation of certain immune cells, including dendritic cells (DCs), which induces the expression of cytokines and chemokines, and leads to an antigen-specific T-cell mediated immune response against cancer cells. STING, a transmembrane protein that activates immune cells in the tumor microenvironment, plays a key role in the activation of the innate immune system. Check for [active clinical trials](#) using this agent. ([NCI Thesaurus](#))

Synonyms & Abbreviations: ([see Synonym Details](#))

ADU-S100

CDN Agonist ADU-S100

MIW815

STING-activating cyclic dinucleotide agonist ADU-S100

STING-activating Cyclic Dinucleotide Agonist MIW815

External Source Codes:

NCI Thesaurus Code	C125902 (see NCI Thesaurus info)
PDQ Closed Trial Search ID	778826
PDQ Open Trial Search ID	778826 (check for NCI PDQ open clinical trial info)

Other Properties: 

Name	Value
DATE_FIRST_PUBLISHED	2016-02-12
DATE_LAST_MODIFIED	2016-05-17
NCI_THESAURUS_CODE	C125902
ORIG_STY	Drug/agent

Additional Concept Data: *(none)*

URL to Bookmark: https://ncim.nci.nih.gov/ncimbrowser/ConceptReport.jsp?dictionary=NCI_Metathesaurus&code=CL504551