HiPep Laboratories

Peptide-Vehicle Library

Overview

In the three years from FY 2008 to FY 2010, we promoted Okinawa Innovation Research Consignment Project "Developing cancer therapeutic drugs and test methods using peptide libraries". We designed a peptide-vehicle in which a cell surface recognition peptide, a cell penetrating peptide and an anticancer agent are conjugated as a candidate substance for "cell targeting therapeutic drug", and studied to construct a library. We will provide "Peptide-Vehicle Library" constructed based on the results. In recent years, problems such as QOL decrease due to side effects, patent disappearance of anticancer substances are a problem, and it is expected that drugs will be delivered that anticancer drugs specifically to cancer cells. We hope to use it as a tool of drug discovery research.

Reference Hirata, A., Nokihara, K. Construction of peptide-vehicles, bioconjugates having modules of cancer cell surface capture and cell-penetrating peptide with anticancer agents, *Tetrahedron Lett.* **2014**, 55, 4091-4094.

Peptide No.	Sequence(C terminal amide)
HiPeV-001F	αTAMRA-GPKSKRKVYGRKKRRQRRR
HiPeV-002F	αTAMRA-GPKSKRKVRQIKIYFQNRRMKWKK
HiPeV-003F	αTAMRA-GPKSKRKVRRRRRRRRR
HiPeV-004F	αTAMRA-GPKSKRKVRRRRNRTRRNRRRVR
HiPeV-005F	αTAMRA-GKKNQKKRYGRKKRRQRRR
HiPeV-006F	αTAMRA-GKKNQKKRRQIKIYFQNRRMKWKK
HiPeV-007F	αTAMRA-GKKNQKKRRRRRRRRRR
HiPeV-008F	αTAMRA-GKKNQKKRRRRRRNRTRRNRRRVR
HiPeV-009F	αTAMRA-GPKSKRKV
HiPeV-010F	αTAMRA-GKKNQKKR
HiPeV-011F	αTAMRA-GYGRKKRRQRRR
HiPeV-012F	αTAMRA-GRQIKIYFQNRRMKWKK
HiPeV-013F	αTAMRA-GRRRRRRRRR
HiPeV-014F	αTAMRA-GRRRRNRTRRNRRRVR
HiPeV-015F	TAMRA-G-YKQC(Acm)HKKGGKKGSG
HiPeV-016F	TAMRA-cNGRGEQcYGRKKRRQRRR
HiPeV-017F	TAMRA-cNGRGEQcRQIKIYFQNRRMKWKK
HiPeV-018F	TAMRA-cNGRGEQcRRRRRRRRR
HiPeV-019F	TAMRA-cNGRGEQcRRRRNRTRRNRRRVR
HiPeV-020F	TAMRA-YGRKKRRQRRRcNGRGEQc
HiPeV-021F	TAMRA-RQIKIYFQNRRMKWKKcNGRGEQc
HiPeV-022F	TAMRA-RRRRRRRRRcNGRGEQc
HiPeV-023F	TAMRA-RRRRNRTRRNRRRVRcNGRGEQc
HiPeV-024F	FAM-GYGRKKRRQRRR
HiPeV-025F	FAM-GRQIKIYFQNRRMKWKK
HiPeV-026F	FAM-GRRRRRRRRR
HiPeV-001D	C(S-EMCA-Gly-CPT)-YGRKKRRQRRR
HiPeV-002D	C(S-EMCA-Gly-Iri)-YGRKKRRQRRR
HiPeV-003D	C(S-EMCA-Gly-Eto)-YGRKKRRQRRR
HiPeV-004D	C(S-EMCA-Gly-Pac)-YGRKKRRQRRR

Peptide No.	Sequence(C terminal amide)
HiPeV-005D	Cys(S-EMCA-Gly-CPT)-YGRKKRRQRRRcNGRGEQc
HiPeV-006D	Cys(S-EMCA-Gly-Iri)-YGRKKRRQRRRcNGRGEQc
HiPeV-007D	Cys(S-EMCA-Gly-Eto)-YGRKKRRQRRRcNGRGEQc
HiPeV-008D	Cys(S-EMCA-Gly-Pac)-YGRKKRRQRRRcNGRGEQc
HiPeV-009D	Cys(S-EMCA-Gly-CPT)-RQIKIYFQNRRMKWKKcNGRGEQc
HiPeV-010D	Cys(S-EMCA-Gly-Iri)-RQIKIYFQNRRMKWKKcNGRGEQc
HiPeV-011D	Cys(S-EMCA-Gly-Eto)-RQIKIYFQNRRMKWKKcNGRGEQc
HiPeV-012D	Cys(S-EMCA-Gly-Pac)-RQIKIYFQNRRMKWKKcNGRGEQc
HiPeV-013D	Cys(S-EMCA-Gly-CPT)-RRRRRRRRRcNGRGEQc
HiPeV-014D	Cys(S-EMCA-Gly-Iri)-RRRRRRRRRcNGRGEQc
HiPeV-015D	Cys(S-EMCA-Gly-Eto)-RRRRRRRRRcNGRGEQc
HiPeV-016D	Cys(S-EMCA-Gly-Pac)-RRRRRRRRRcNGRGEQc
HiPeV-017D	Cys(S-EMCA-Gly-CPT)-RRRRNRTRRNRRRVRcNGRGEQc
HiPeV-018D	Cys(S-EMCA-Gly-Iri)-RRRRNRTRRNRRRVRcNGRGEQc
HiPeV-019D	Cys(S-EMCA-Gly-Eto)-RRRRNRTRRNRRRVRcNGRGEQc
HiPeV-020D	Cys(S-EMCA-Gly-Pac)-RRRRNRTRRNRRRVRcNGRGEQc