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H．知的所有権の出願・登録状況

1. 特許取得

なし

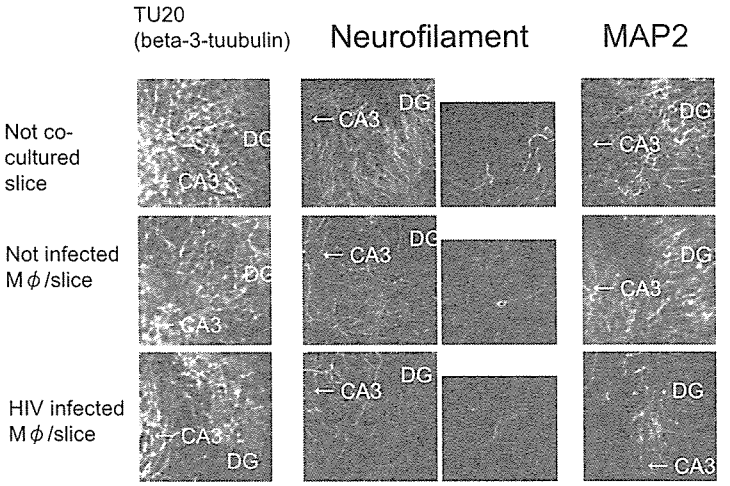
2. 実用新案登録

なし

3. その他

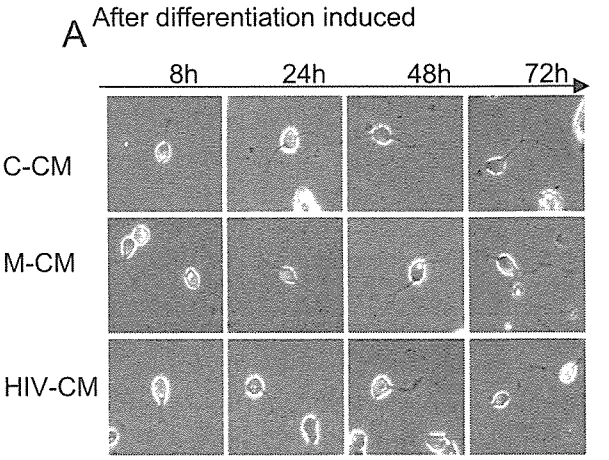
なし

図1 ラット脳海馬スライス培養系における神経細胞軸索の解析



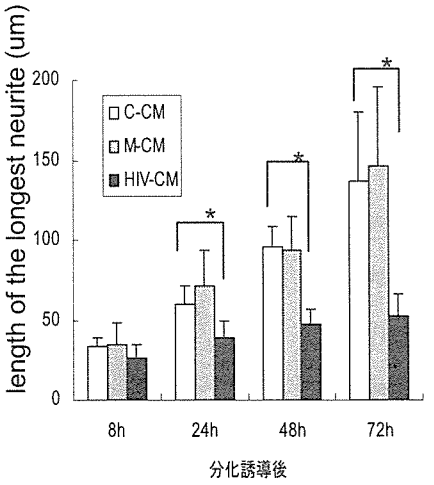
HIV感染マクロファージ共培養スライスでは非共培養および非感染マクロファージ共培養スライスに比べて軸索の脱落が著明であった。

図 2 マウス脳分離神経細胞における樹状突起および軸索伸張誘導実験(A)



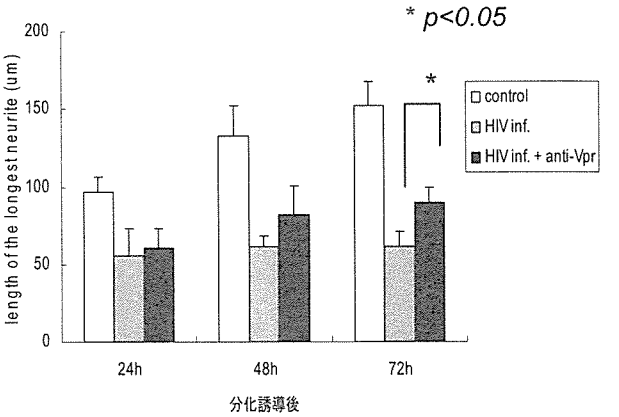
HIV感染マクロファージ培養液(HIV-CM)添加培養系においては、メディウム誘導開始後72時間にかけて、非添加培養液(C-CM)と非感染マクロファージ培養液添加(M-CM)と比較して樹状突起形成障害と軸索伸張障害が認められた。

図2Bマウス脳分離神経細胞における軸索伸張長測定



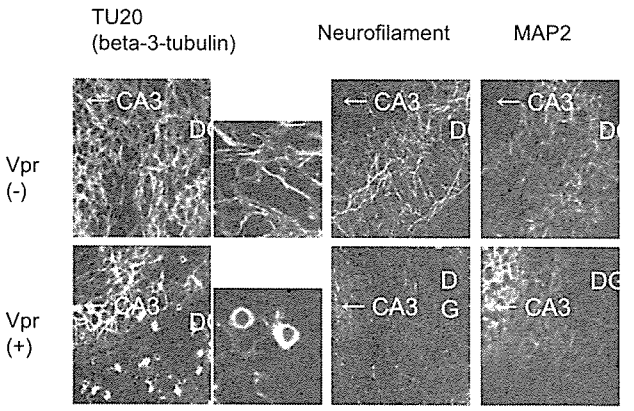
軸索を形成しうる最も長い樹状突起(軸索)長を測定した結果、HIV感染マクロファージ培養液添加培養系では有意に伸張障害が見られた。

図2Cマウス脳分離神経細胞における軸索伸張長測定実験への抗Vpr抗体の添加



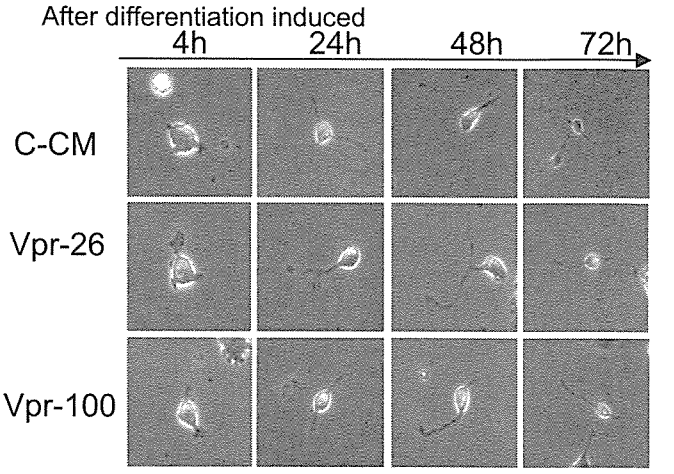
HIV感染マクロファージ培養液添加培養系でおこる神経細胞軸索伸張障害は抗Vpr抗体の添加にて一部回復した。

図3 ラット脳海馬スライス培養系における神経細胞軸索の解析



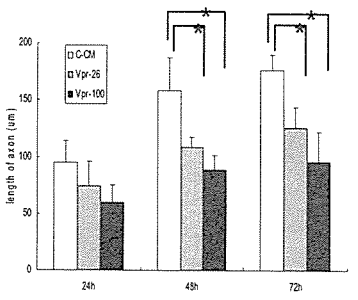
Vpr精製蛋白質の添加により、軸索は脱落していた。

図4A マウス脳分離神経細胞における樹状突起および軸索伸張誘導実験



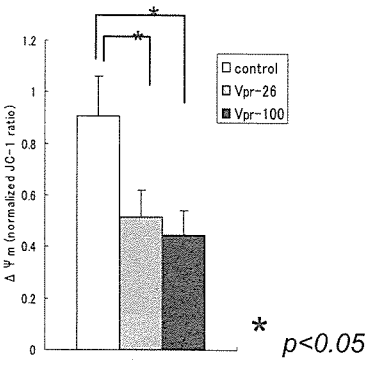
Vpr精製蛋白質添加培養系においては誘導開始後72時間にかけて軸索伸張障害が認められた。

図4B マウス脳分離神経細胞における軸索伸張長測定



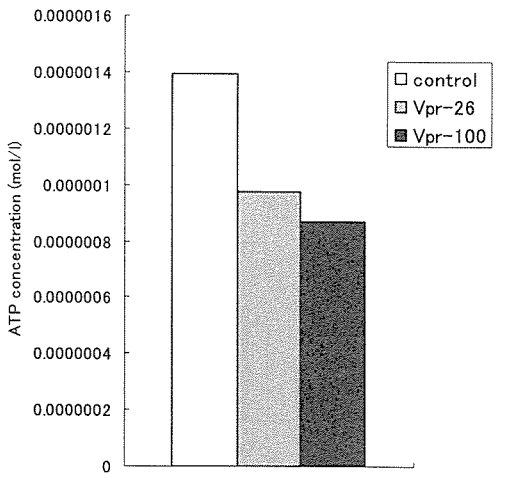
神経細胞軸索長を測定したところ、Vpr添加培養系では有意な軸索伸張障害が見られた。

図5A マウス脳分離神経細胞におけるミトコンドリア膜電位測定



JC-1染色後に蛍光顕微鏡を用いて蛍光輝度を測定したところ、Vpr添加培養系ではミトコンドリア膜電位の有意な低下を認めた。

図5B マウス脳分離神経細胞における細胞内ATP濃度測定



Vpr添加培養後の神経細胞を回収し、ATP Bioluminescence Assayを行った結果、Vpr添加培養系の細胞では細胞内ATP濃度が低下していた。

III. 研究成果に関する刊行一覧表

研究成果に関する刊行一覧表

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