Utilizing the ABC transporter for growth factor Production by *fleQ* Deletion Mutant of *Pseudomonas fluorescens*

Benedict Uy Fabia[1], Joshua Bingwa[1], Jiyeon Park[2], Nguyen Mihn Hieu[1], and Jung Hoon Ahn[1,2,*]

Supplementary material. Full sequences of the target proteins, in FASTA formats

> IGFI

MGPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCAPLKPAKSA

> IGFII

MAYRPSETLCGGELVDTLQFVCGDRGFYFSRPASRVSRRSRGIVEECCFRSCDLALLETYCATPAKSE

> βNGF

MSSSHPIFHRGEFSVCDSVSVWVGDKTTATDIKGKEVMVLGEVNINNSVFKQYFFETKCRDPNPVDSGCRGIDSKHW
NSYCTTTHTFVKALTMDGKQAAWRFIRIDTACVCVLSRKAVRRA

> FGF1

MFNLPPGNYKKPKLLYCSNGGHFLRILPDGTVDGTRDRSDQHIQLQLSAESVGEVYIKSTETGQYLAMDTDGLLYGS
QTPNEECLFLERLEENHYNTYISKKHAEKNWFVGLKKNGSCKRGPRTHYGQKAILFLPLPVSSD

> TGFβ

MSRALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGA
SAAPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS

> TNFβ

MLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQNSLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFV
YSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLSSQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHT
DGIPHLVLSPSTVFFGAFAL

> Negatively supercharged IGFI (IGFI(-))

MGPETLCGAELVDALQFVCGDRGFYFNEPTGYGSSSQRAPQTGIVDECCFRSCDLQQLEMYCAPLEPAKSA

> Negatively supercharged IGFII (IGFII(-))

MAYRPSETLCGGELVDTLQFVCGDRGFYFSEPASQVSQQSRGIVEECCFRSCDLALLETYCATPAKSE

> Negatively supercharged βNGF (βNGF(-))

MSSSHPIFHRGEFSVCDSVSVWVGDKTTATDIKGKEVMVLGEVNINNSVFKQYFFETKCRDPNPVDSGCRGIDSKHW
NSYCTTTHTFVKALTMDGEQAAWDFIDIDTACVCVLSEEAVEEA

> **Negatively supercharged FGFI (FGF1(-))**

MFNLPPGNYQQPKLLYCSNGGHFLRILPDGTVDGTRDDSDQHIQLQLSAESVGEVYIKSTETGQYLAMDTDGLLYGS
QTPNEECLFLERLEENHYNTYISQEHAEQNWFVGLKQNGSCKDGPRTHYGQKAILFLPLPVSSD

> **Negatively supercharged TGFβ (TGFβ(-))**

MSRALDTNYCFSSTEENCCVRQLYIDFREDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGAS
AAPCCVPQALEPLPIVYYVGRDPKVEQLSNMIVDSCKCS

> **Negatively supercharged TNFβ (TNFβ(-))**

MLPGVGLTPSAAQTAQQHPQMHLAHSTLKPAAHLIGDPSTQNSLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFV
YSQVVFSGEAYSPEATSSPLYLAHEVQLFSSQYPFHVPLLSSQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHTD
GIPHLVLSPSTVFFGAFAL