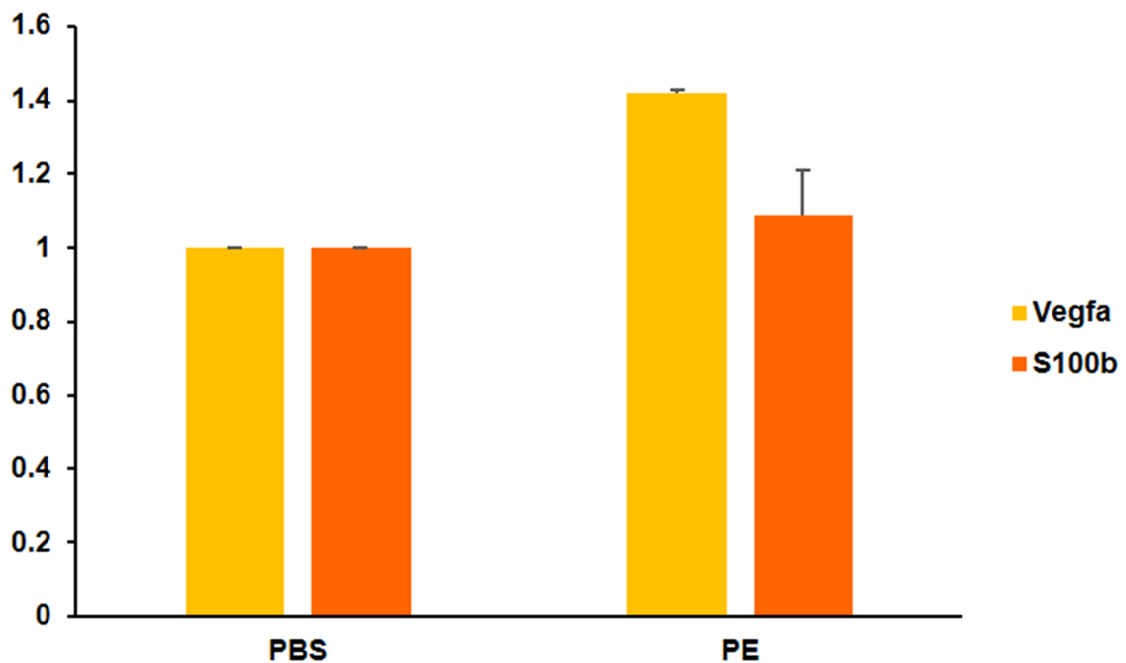


Supplementary figure S1. PE stimulates neurite outgrowth in SH-SY5Y cells.

(A) Shows the untreated control , (B) Cells treated with PE for 24 hrs,(C~D) Both Control and PE treated cells after 3 days of induction of neuronal differentiation, (E) Neurite length was measured between Dif and PE-Dif (*t*-test, **P* < 0.05, mean ± SD, *n* = 4)



Supplementary figure S2. PE stimulates the regeneration of facial muscle.

Supplementary Table. Various bioactive molecules of placental extracts

Growth factors	Reference
VEGF	Khaliq et al. [8]
EGF	Hofmann et al. [9]
Transforming GF	Lysiak et al. [10]
Hepatocyte GF	Uehara & Kitamura [11]
Insulin like GF-1	Zhang et al. [12]
Fibroblast GF	Devi et al. [13]
Keratinocyte GF	O'Keefe et al. [14]
Protein	
Merosin	Ehrig et al. [15]
L-tryptophan	Watanabe [16]
Uracil	Scatena et al. [17]
Phenylalanine	Benham [18]
Cytokines	
Relaxin	Schmidt et al. [19]
Leptin	Bersinger et al. [20]

VEGF ; Vascular endothelial growth factor, EGF ; Epidermal growth factor, GF ; Growth factor