

**Supplementary Table 1. Reference ranges for hormone tests**

Hormone	Reference range
TSH ( $\mu\text{U/mL}$ )	0.4–5.0
Free T4 ( $\text{ng/dL}$ )	0.8–1.9
ACTH ( $\text{pg/mL}$ )	< 60
Cortisol ( $\mu\text{g/dL}$ )	
Morning (8:00 AM)	5–25
At 60 minutes after corticotropin administration	> 18
IGF-1 ( $\text{ng/mL}$ ), age group (yr)	
20–30	219–644
30–40	140–405
40–50	64–336
50–60	71–284
60–70	94–269
$\geq 70$	72–167
hGH ( $\text{ng/mL}$ )	0–9.9
FSH ( $\text{mIU/mL}$ )	
Men	1.3–8.1
Premenopausal women	1.2–33.1
Postmenopausal women	27.7–93.3
LH ( $\text{mIU/mL}$ )	
Men	1.0–5.3
Premenopausal women	0.5–41.1
Postmenopausal women	14.4–52.8
Testosterone, male ( $\text{ng/mL}$ )	2.5–10.6
Estradiol ( $\text{pg/mL}$ )	
Premenopausal women	25–450
Postmenopausal women	< 35.0
Prolactin ( $\text{ng/mL}$ )	
Male	1.8–15.9
Premenopausal women	2.7–19.7
Postmenopausal women	1.9–17.9

TSH, thyroid-stimulating hormone; T4, thyroxine; ACTH, adrenocorticotrophic hormone; IGF-1, insulin-like growth factor; hGH, human growth hormone; FSH, follicle-stimulating hormone; LH, luteinizing hormone.

The reference ranges for all tests conformed to the standards of the Department of Laboratory Medicine at Asan Medical Center in Seoul, Korea.