Figure A.1

70% BETA SIGNALING PATHWAY

Growth factor

Raf-1

ERK

Transcription factors, co-activation, and co-repression

Apoptosis

Angiogenesis, extracellular matrix remodeling, inflammation, apoptosis induction

G1 arrest

Cell Cycle

DNA replication

Left-right axis determination, cartilage differentiation, etc.

DNA replication

Downstream growth, embryo differentiation, placental formation, etc.

MAPK signaling pathway

Ubiquitin-mediated proteolysis

Activation

Inhibition

Indirect effect

Phosphorylation

Binding/Association

Expression

Repression