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The Interaction of IGF-1/IGF-1R and Hydrogen Sulfide on the Proliferation of Mouse **Primary Vascular Smooth Muscle Cells**

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Running title: H₂S inhibits IGF-1-induced SMC proliferation

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Abbreviations:

BrdU, bromodeoxyuridine; CBS, cystathionine-beta-synthase; CRISPR, clustered regularly interspaced short palindromic repeats; CSE, cystathionine-gamma-lyase; DMEM, dulbecco's modified eagle's medium; ERK, extracellular regulated protein kinase; FBS, fetal bovine serum; H₂S, hydrogen sulfide; IGF-1, insulin-like growth factor-1; IGF-1R, insulin-like growth factor-1 receptor; KO, knock out; MAPK, mitogen-activated protein kinase; MMTS, S-Methyl methanethiosulfonate; MST, 3-mercaptopyruvate sulfurtransferase; MTT, 3-(4,5dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide; NaHS, sodium hydrosulfide; PAGE, polyacrylamide gel electrophoresis; PBS, phosphate-buffered saline; PBST, phosphate buffered saline supplemented with Tween 20; PI3K, phosphatidyl inositol 3-kinase; PPP, picropodophyllin; SDS, sodium dodecyl sulfate; sgRNA, single guide RNA; WT, wild type.

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