Supplementary Figure 1. Administration of BIBF1120 by oral gavage inhibits pathological neovascularization and does not disrupt established normal vascular network. A) Representative photomicrographs from isolectin B4-stained retinal flatmounts from P18 rat pups exposed to 50/10 OIR model
treated by oral gavage with vehicle (PBS:DMSO) or BIBF1120 (50 mg/kg) at P14 and P16. (Peripheral) avascular and pre-retinal neovascular (NV) areas are outlined respectively with green dotted lines and solid white lines. Pups orally treated with BIBF1120 showed significant decrease in NV, but not in avascular area compared to vehicle. The histograms show the quantification of retinal NV (white bars) and avascular areas (green bars) in animals treated with vehicle (PBS:DMSO) or BIBF1120 (50 mg/kg). B) Representative photomicrographs from isolectin B4-stained retinal flatmounts from P18 rat pups under normoxia and treated by oral gavage with vehicle (PBS:DMSO) or BIBF1120 (50 mg/kg) at P14 and P16. Pups orally treated with BIBF1120 did not exhibit significant differences in vascular density compared to vehicle. The histograms display the quantification of vascular density in the whole retinas (white bars) treated with vehicle (PBS:DMSO) or BIBF1120 (50 mg/kg). Values are mean ± SEM of n=6 per group; ***p<0.0001 compared to vehicle.
Supplementary Figure 2. BIBF1120 modulates RTK-induced guidance cues expression on retinal ganglion cells. Quantitative real-time PCR analysis was performed on cell lysates from RGCs treated with recombinant human FGF for 24 hours in presence or absence of BIBF1120 (200 nM). A significant augmentation in the mRNA expression of VEGF (#p<0.05), Netrin-1 (#p<0.01) and Sema3A (#p<0.001), but not of Sema3F (#p>0.05), was detected at the end of the incubation period. BIBF1120 annulled all FGF-induced increases. Values are mean ± SEM of n=3 samples per group. The fold changes were normalized to 18S as internal control. Significant differences (p value) in the mRNA levels between vehicle and BIBF1120 treatment are shown in the histogram; #p<0.05 vs vehicle and **p<0.01, ***p<0.001 compared to FGF treated group.