```
preserved_by_monotone  THM

⊢  ∀T:Type, P:(T→Prop), R1,R2:(T→T→Prop).
|  (∀x,y:T. (x R1 y) ⇒ (x R2 y)) ⇒ R2 preserves P ⇒ R1 preserves P
| by Unfold ‘preserved_by‘ 0 THEN Reduce 0 THEN Auto
|
1. T : Type
2. P : T→Prop
3. R1 : T→T→Prop
4. R2 : T→T→Prop
5. ∀x,y:T. (x R1 y) ⇒ (x R2 y)
6. ∀x,y:T. P(x) ⇒ (x R2 y) ⇒ P(y)
7. x : T
8. y : T
9. P(x)
10. x R1 y
⊢  P(y)  by Using [‘x’,x] (BackThruSomeHyp THEN Auto THEN EasyHyp)
END
```